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REPORT OF THE CASE OF

ALEXANDER BAIN VS.

S.F.B. MORSE

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REPORT

OF THE CASE OF

ALEXANDER BAIN, APPELLANT,

VS.

SAMUEL F. B. MORSE, RESPONDENT,

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BEFORE THE

HON. WILLIAM CRANCH,

CHIEF JUSTICE OF THE DISTRICT OF COLUMBIA,

ON APPEAL FROM THE DECISION OF THE

COMMISSIONER OF PATENTS.

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R. H. GILLET,

Of Counsel for the Appellant.

AMOS KENDALL AND
A. H. LAWRENCE,

Of Counsel for the Respondent.

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WASHINGTON, *March* 16, 1849.

ARTHUR J. STANSBURY, Esq.

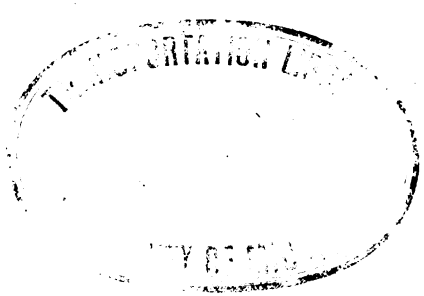
DEAR SIR: On the 2d instant I received your favor of the 1st, accompanying your notes of the argument of counsel, in the case of Alexander Bain, appellant, *vs.* Samuel F. B. Morse, appellee, upon appeal from the Commissioner of Patents; for which, and for the favor of perusing those notes, I beg you to accept my thanks. I have read them carefully, and am surprised at their great accuracy. I doubt whether I should be able to correct a single word.

I yesterday filed my opinion and judgment in the Patent office, and now return your notes.

With very great respect, I am, dear sir,

Your obedient servant,

W. CRANCH.



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FEBRUARY 5, 1848.

DISTRICT COURT OF THE U. S., FOR THE DISTRICT OF COLUMBIA, BEFORE CHIEF JUSTICE CRANCH;

IN THE CASE OF

ALEXANDER BAIN *vs.* S. F. B. MORSE.

Appeal from a decision of the Commissioner of Patents, refusing a patent, on the alleged ground of interference with a patent previously granted.

Mr. GILLET. I appear before your honor as counsel in behalf of Mr. Bain. It was my desire that the case should proceed to-day; but a working model, exhibiting the nature of Mr. Bain's invention, which I desire to submit to your honor as an assistance to your better understanding of the case, has been for some time delayed on the way from New York, by being frozen up in the Susquehannah river; it has, however, since been liberated, and is now in the city; and I hope to be able to produce and exhibit it before your honor to-morrow. On account of the absence of this machine, I am not in circumstances so fully to explain the difference between the inventions of Mr. Bain and Mr. Morse as I could desire. An inspection of the machine would, in my apprehension, tend materially to shorten the investigation of the case.

CHIEF JUSTICE. Is there any counsel present on behalf of Mr. Morse?

Mr. Gillet. There is not; nor do I know who his counsel are.

The Commissioner of Patents is required, under the statute, in case of refusing a patent, to set forth, in writing, his reasons for such refusal. This paper we have not seen; and we now ask that we may see and examine it.

Mr. SCHLEY, (also of counsel for Mr. Bain.) If we can ascertain who are the defendant's counsel, it might be desirable to have the case deferred for a day.

Chief Justice. I ordered the Commissioner of Patents to give notice to all the parties.

Dr. Page, Examiner in the Patent Office, here appeared, and stated that the Commissioner had received and complied with the order, and had served a notice on Mr. Morse, the defendant.

Mr. Schley requested liberty to see the reasons set forth by the Commissioner for refusing the patent claimed by Mr. Bain.

Dr. Page stated that a similar application, when made to the Com-

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missioner on the part of the defence, had by him been refused, until the paper should have been first submitted to the Judge.

Chief Justice. The paper should be here now, and will be open to examination.

Mr. Gillet. We also wish to see a certified copy of the caveat alleged to have been written by Mr. Morse for his telegraph. The Commissioner refused us copies of that caveat.

Dr. Page here produced and laid before the Judge, from the Commissioner of Patents, the following documents:

1. Bain's application to the Commissioner of Patents for his Electro-Chemical Telegraph, patented to him in England on 12th December, 1846, and for certain improvements.

2. An English copy, duly certified, of said Bain's patent of 12th December, 1846.

3. A duly certified copy of said Bain's English patent of 27th May, 1843.

4. S. F. B. Morse's caveat, filed in the confidential archives of the Patent office of the United States on the 27th January, 1847, and his specification conforming thereto, dated 20th January, 1848, accompanied by two drawings.

5. The testimony produced before the Commissioner of Patents.

6. The decision of the Commissioner in favor of Morse.

7. The reasons of appeal filed by Bain, in support of his appeal to the Chief Justice, from the Commissioner's decision.

8. The Commissioner's reasons of decision, being an answer to the reasons of appeal.

9. Copy of a decision by the Attorney General, on points submitted to him by the Commissioner of Patents.

10. Testimony of S. DeWitt Bloodgood, H. A. Munson, and Charles W. Morse.

11. Extract from the New York Observer.

12. Three arguments—two by Bain, and one by Lawrence, his attorney, in support of Bain's claim.

Chief Justice. Mr. Bain has presented his petition of appeal to me, which gives me jurisdiction of the case. As my revision of it will be confined to the points raised in the reasons of appeal, the first thing to be done will be to ascertain what those points are. When possessed of these, I shall be prepared to proceed in the case. Perhaps it will be better to take a day or two to examine the papers.

Mr. Bain's counsel, after consulting together, agreed to request that the farther hearing of this case be deferred till to-morrow.

Mr. Schley stated that professional engagements in the court of appeals, at Annapolis, would prevent his farther attendance, but he desired that the case should proceed; and he was then understood as withdrawing from the further charge of it.

The court then adjourned to to-morrow, (Tuesday 6th,) at ten o'clock.

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TUESDAY, *Feb. 6th.*

The court met at 10 o'clock. Present, Chief Justice Cranch.

The Judge produced the petition of appeal of Mr. Bain from the decision of the Commissioner of Patents.

Mr. KENDALL appeared as counsel for S. F. B. Morse, and observed to the court, that in the statute under which this appeal came to be heard, viz., the Patent law of 1836, there was a provision which allowed that examiners in the Patent office might be examined before the Chief Justice in cases of appeal, as witnesses, to explain the principles of an invention or machine which might be the subject of dispute; and stated it to be the desire of Mr. Morse that Dr. Page, an examiner in the Patent office, should, at the proper time, be admitted to testify accordingly.

Chief Justice. I am here to hear this case of appeal, on the testimony which was submitted to the Commissioner, and on which he decided.

Mr. Gillet. Yes, your honor; but there is a provision in the Patent law which allows an examiner in the Patent office to attend as a witness and explain the principles of a machine, to enable the court better to understand its nature: for this object, and no other, may he be examined.

Chief Justice. The language of the law is, "and at the request of any party interested, or at the desire of the Judge, the Commissioner and the examiners in the Patent office may be examined, under oath, in explanation of the principles of the machine, or other thing, for which a patent, in such case, is prayed for."

Mr. Gillet. I suppose that, in order to a right and full understanding of the matter in controversy before your honor, it will be important that models of the two machines said to interfere with each other should be produced in court. I apprehend that no one can fully understand the merits of the case without an inspection of such models.

Dr. Page. It has not been usual to bring models into court.

Mr. Gillet. The examiner states that such a course has not been usual.

Chief Justice. It has not been usual; but there are cases in which models have been produced in court. I recollect one, in relation to leaden pipes, on a claim of Mr. Keller. The model, in that case, was brought into court and examined. I should think it best, in the present case, that models should be produced.

And it was so ordered.

Mr. Gillet. In order that the court may understand more fully the assignment of reasons in behalf of Mr. Bain's appeal to this court from the decision in his case by the Commissioner of Patents, I propose, in the first place, to make a brief statement of the FACTS in the case.

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Before Chief Justice Cranch.

ALEXANDER BAIN, appellant,
vs.
THOMAS F. B. MORSE, respondent.

Appeal from the decision of the Commissioner of Patents.

On the 18th of April, 1848, the appellant, a subject of Great Britain, presented a written application to the Commissioner of Patents, asking him to grant the applicant a patent for inventions in telegraphing. He claimed to have had a patent issued to him on the 12th of December, 1846, in England, which, with improvements, he wished to patent here. It was, at first, decided to issue a patent for what he claimed; but, before its actual issue, it is alleged that in the secret archives of the Patent office there was found an application by the respondent for a patent for the matters set up in the appellant's third claim, which was filed January 20, 1848; that it was deposited there because the respondent had not filed a model of his machine. It is also alleged that, on the 27th of January, 1847, he had filed in said secret archives a caveat for the same invention. On comparing the appellant's third claim with the respondent's whole claim, the Commissioner declared there was an interference; and the parties were duly notified to produce testimony of the dates of their respective inventions. On the Commissioner informing the appellant and his counsel that said Bain could not go behind his foreign patent for proof of priority in this case, a question was raised upon this point of law, which the appellant desired might be referred to the Attorney General for his opinion. This reference was made; but, before it was decided, the Commissioner was informed that the objection to his decision would be waived, because Bain's counsel had made such discoveries as would render this opinion of no consequence in the case. It was, however, given, confirming the Commissioner's view. The Commissioner further decided that, although Bain's patent was dated December 12th, 1846, the specifications not having been enrolled until June 12th, 1847, it must be considered as bearing date from the latter period. Bain offered his English patent of 1843 as evidence that the same things now in controversy had been then patented by him, but the Commissioner held that it was not identical. The appellant also proposed to have the question as to the identity, and the impossibility of using Morse's claim, submitted to scientific men. No notice was taken of this offer. All evidence to show Bain's invention to be older than Morse's was shut out. But Morse was allowed to make proof of discovery prior to his application, and prior to his caveat. He proved by his son that, in September, 1846, the latter saw an instrument at his father's room, but which he does not identify with the present claim. Morse contends it is the same. Bain denies this.

The Commissioner decided that Morse and Bain claimed the same thing. This Bain denies, and says they are not alike. He insists that Morse's machine, &c., will not operate as he contends, and that it

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cannot be made and used practically. The Commissioner decided that Morse was the first inventor. Bain insists that, if he had been allowed to make the proper proof, he could have shown his invention to have been long prior to Morse's. Morse insists that he is the inventor of all that he claims; while Bain contends that Morse's whole machine is only a combination of old materials. Bain only claims a patent for a new combination of materials, some of which are certainly old. He is, in fact, however, the inventor of the stylus or pen which he uses, and which clearly distinguishes his invention from what Morse claims.

The Commissioner refused Bain a patent for his third claim, and determined to grant one to Morse for all his.

The appellant, not being satisfied with this decision, appealed to your honor, and filed his reasons for appeal with the Commissioner. The question is now before you to be finally determined.

I will here state to your honor, (because, from the *manner* of a question put by Mr. Kendall, it seemed to be disputed,) that the Commissioner had decided that Mr. Bain was entitled to a patent. In the reasons assigned by him in defence of his decision, here produced before your honor, that fact appears; and in the decision itself the same fact also distinctly appears.

The Commissioner says in his decision, "it appears from the records of the office that the application by said Alexander Bain, subject of Great Britain, was made April 18, 1848; and, upon examination of his claims, it was found that the before mentioned claim *could be admitted to patent*, no invention of a like character appearing in the public records of the office, nor in any printed publication."

The same statement is twice if not three times reiterated in the reasons filed by Mr. Burke.

So much for the facts.

On the hearing before the Commissioner, testimony was introduced by Mr. Morse to show, on his part, a priority of invention over Mr. Bain. Bain affirmed, in his application, that a patent had been granted him in England for his invention in December, 1846, as well as a previous patent in November, 1843. To avoid Bain's evidence on this point, it was contended, on behalf of Morse, that Bain's English patent, though issued and sealed on the 12th of December, 1846, was not a patent, in fact and in law, till the June following; also, that the previous patent of 1843 did not contain the same principles as the patent of 1846. Bain, on the contrary, insisted that the two were, in substance, precisely analogous. Thus an issue was formed between the parties. On that issue the Commissioner, without hearing or requiring one particle of testimony, decided that the two patents of 1843 and 1846 were not substantially alike, and thereupon shut out the the patent of 1843, which went to show Bain to have been the first inventor. But Bain's patent of 1846 was, in date, before Morse's application; and it was therefore contended, on Morse's part, that Bain's patent, though dated and sealed in December, 1846, was not complete or valid till the 12th of June following, when his specification was first

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enrolled, although the patent, when granted, was sealed. But, to make sure of Bain's defeat, they contended that Bain, being a subject of Great Britain, could not, under our law, go back of his British patent to prove, by testimony, his priority of discovery; yet Morse was permitted, for a similar purpose, to go back of his caveat and application. The Commissioner decided that there was, under our law, a difference in this respect between a subject of Great Britain and a citizen of the United States; that an American citizen could go back of his application to show priority of invention by him; but that a subject of a foreign government could not go behind the foreign patent under which he claimed, (and which, as I have said, by a forced construction, he made to date in June, 1847, instead of December previous, at which time it was dated and sealed;) and he thereupon notified Mr. Bain that he could not receive any proof to show that Bain's invention was prior to that day, viz., 12th of June, 1847.

His decision is, that Morse may go back of his patent to show priority of invention; but that Bain cannot, although he might have invented the same thing with Mr. Morse, three, or six, or twenty years before.

From that decision Mr. Bain has appealed to your honor in this court.

His reasons of appeal are long—occupying, I believe, some twenty pages. It would take a long time to read them here. Your honor has them before you, and can examine them at your leisure. But it is necessary to a right understanding of the case, that those reasons should be succinctly stated and explained.

Chief Justice. The first question is, what are the points involved in the reasons of appeal? You can now go on, and state what is the first point.

Mr. Gillet. There are five principal points, which I have drawn up here; but they cover many minor points. I will now read them.

1. The first is, that Mr. Morse has not filed a sufficent specification, nor accompanied it with sufficient drawings and model, to enable a person skilled in chemistry, electricity, and mechanics, to construct his machine; and that the Commissioner should have so decided, and on that ground refused his application for a patent.

2. That there is no real and substantial interference between Bain's invention and Morse's; and therefore Bain's application ought to have been granted.

3. That the Commissioner should have declared the true date of Bain's English patent to be the 12th of December, 1846, as it appears on its face; which date was prior to Morse's application, not only, but prior to his caveat.

4. That the Commissioner erred in allowing Morse to go behind his caveat and application, and yet refusing leave to Bain to go behind his English patent of December, 1846, to show priority of invention.

5. The testimony on the part of Mr. Bain, to show priority of invention, ought to have been received, as well as that to show the inutility of Mr. Morse's invention, as set forth by him.

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These five points contain the substance of Mr. Bain's reasons of appeal; but, as I said, they involve many minor points, which also will enter into and form part of this discussion.

Mr. Gillet here proceeded to read Mr. Bain's reasons for appeal at length, which are as follows:

In the matter of the application of Alexander Bain, for a patent, founded on his English patent of December 12th, 1846, which has been declared to interfere with the application of S. B. F. Morse for one for the same invention:

Mr. Bain applied to the Commissioner of Patents to grant him a patent founded on his patent of 1846, claiming three inventions of practical utility in Telegraphing. The Commissioner decided that he was entitled to letters for the two first, but that the last interfered with the application by Morse. From the latter decision Bain has appealed to the Chief Justice of the circuit court in Washington. Mr. Bain, by his counsel, assigns the following reasons for his appeal, to wit:

First. Morse has not filed sufficient drawings, nor deposited a sufficient model of his invention; nor has he described it in such full, clear, and explicit terms, as to enable a person skilled in chemistry, and electricity, and mechanics, to construct and use the same to transmit intelligence. The Commissioner erred in not so deciding. He should have excluded Morse's application for these reasons, and then there would have been no interference with Bain's specification. At the hearing before the Commissioner, it was not disputed that Bain's invention was, in the words of the statute, "sufficiently useful and important" to be patented. Neither Morse nor the Commissioner denied this. Hence it must be considered as admitted, and beyond dispute, that it was so. The Commissioner admits it in his decision. Bain, however, denied that Morse's invention was useful and important. No testimony was taken on that point, although it was one in dispute between Bain and Morse. There being no proof on the point, the reviewing tribunal will be without any guide, except personally to read the specification and claim, and to examine the model and drawing of Morse, and determine whether, by following the directions contained therein, anything useful and important can be produced. As the case now stands, there is no way in which this can be avoided. No further testimony can be now adduced on this or any other point, unless the case shall be sent back for further proof. It is now, as it was before the Commissioner, denied that the invention described by Morse can be brought into practical use. By following his directions no telegraphic or other machinist can produce an instrument that will operate as, and to the extent, Morse claims, and no chemist can produce the results he describes by complying with his specifications. The case, as it stands, does not show that the results stated by Morse can be produced. Without evidence to the point, or actual personal experiment, neither the Commissioner or Judge can know this. It is not pretended that any chemical or mechanical tests have been applied by the Commissioner, nor can it be expected that

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the Judge will do either. Then, on this point, the case is imperfect, and must be opened and the testimony supplied, or it must be sent back by the Judge. It will be borne in mind, that this is purely a question of *fact*, on which no evidence can be adduced before the Judge. It is true that the Commissioner and examiners may be called by either party to testify under oath, "*in explanation of the principles of the machine, or other thing*," for which a patent is asked. But this will not allow them to *testify to any other matter whatever*. They cannot give *opinions*, or state any *fact or other thing* than is provided in the statute. If they could, the party calling them would have an advantage over his adversary, who could not call others to answer their evidence and to contest their opinions. An examiner might state what he believed to be a fact, or express an opinion honestly entertained, when the other side might, if allowed, introduce a hundred witnesses, of equal character, to overcome both. They may explain the principles of a machine, but cannot give evidence of what it has or can accomplish, or whether it can be made useful by following the specifications. They may explain that electricity will decompose salts, but they cannot testify what effect has been or can be produced by applying it as Morse proposes to do, nor express any opinion on the point. They cannot state what experiments they have made or seen. All these are matters of deep interest, going to the very bottom of this controversy, but none of which can be properly determined, as the case now stands. In behalf of Mr. Bain, it is distinctly alleged, that Morse has not described what he claims, so that it can be effected by the means he describes, and that if his directions are followed, nothing new or useful can be produced. If this is disputed by him, Bain offers, if allowed a sufficient opportunity to do so, to make clear, full, and incontestible proof of what he alleges. Inasmuch as there is no proof on this point by either party, it is claimed by Bain that there was error in not excluding Morse's claim and allowing his, which was not disputed on this point. He claims that the proper mode of correcting that error is to open the case for the production of full evidence on both sides.

Second. There is, in fact, no real and substantial interference between the two applications. The Commissioner should so have decided, and granted Bain the patent for which he asked.

This proposition is partially like the preceding one, but is essentially different. It does not raise the questions whether Morse's invention is new and useful, or whether, if made according to his descriptions, it would produce the results which he claims. For the purpose of argument, we may admit these points. But we deny that there is a sufficient *resemblance* in the inventions to produce an *interference*. No evidence appears to have been introduced before the Commissioner on this point. The identity was taken for granted by Morse, but not admitted by Bain. The Commissioner, in his decision, alleges that they are the same, without stating the evidence showing them to be so; though he quotes from the claims of both what he seems to have supposed established the fact. He concedes and states that the use of

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electricity as a motive power, and the single telegraphic current, had been long known, and neither is patentable. Then, so far as these two matters are concerned, provided they are the same as Morse's, there can be no interference. Neither Bain or Morse can have a monopoly of these, because they are *principles* which belong equally to all men. Neither can monopolize the use or application of them. All that either can claim as his own, is the right to use them in the *particular manner discovered by himself*. No one can monopolize the use of air, fire, or water; but he may apply them in a manner invented by himself, and acquire a special property in that manner. He may combine several subjects, and by their united agency produce a given new result, and claim it as his own. Electricity and chemistry were known and used before Bain's invention, but their combined agency in producing certain useful results was a discovery of his. His specifications, drawings, and models, in the hands of a chemist and telegraphic machinist, skilled in the business, will enable him to produce the results which he states. This cannot be disputed, but must be admitted by all. The Commissioner so decides in his written opinion, as Bain understands it. Morse has not questioned it. Then it will be treated in this paper as settled, that Bain's specification, drawings, and models, if followed by [one] skilled in the business, will produce the important results, in transmitting and receiving intelligence, which he sets up in his claim. Examined and tested, it will be found that all he claims as his discovery is set out in a manner not to be controverted. He describes and uses chemical agents, and the long telegraphic circuit, the earth being a portion of it, in a *particular manner*, to produce the consequences which he describes. The use of them in this particular manner is what he claims as his invention, and for which he asks a patent. But, on examination, Morse's model will not be found the same—except to a trifling extent—either in form, substance, or principle. It is incapable of producing the same mechanical consequences, and incompetent to operate in the same way upon chemical agents or ingredients. If it could produce any of the same consequences, it would be in a different manner, which would be no interference. Producing the same results without using the same means, is no infringement. An examination of Morse's drawings will also prove this dissimilarity. They do not exhibit the same machinery, nor the same use of electric power, or of chemical agents. From them the same machine cannot be made. There are disconnected and undescribed parts, which no machinist would know how to adjust in constructing a machine. It is not like Bain's in any essential respect. A machinist, or constructor of telegraphs, could not produce the same machine in principle by making one from each set of drawings. In his drawings, Morse does not show a single circuit, composed, in part, of the earth. Indeed they do not show such a circuit at all. Local circuits seem to be drawn on them, and the whole connected by wires alone. From the drawings, it is quite apparent that the single circuit, as used in Bain's instrument, has no

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place there. If he used it in a manner different from Bain, then identity is not found. If we go to the specifications, we shall meet with as great dissimilarity. A telegraphic machinist and chemist, following both, in constructing and using the inventions, would produce different results in substance and principle. This difference is not easily described by one not skilled in mechanics and chemistry; but it is unequivocally and certainly true, as the proper tests would show. If Bain and Morse use the same agents, chemical or otherwise, but in a different manner, then their inventions are not alike. The reading of the two specifications will prove that the same agents are not used in the same manner in both. In this respect the parties, in their applications, have furnished the most reliable evidence of the want of identity between their claims. A thorough and careful examination must bring every mind to this conclusion. But suppose there should be doubts on this point, what shall be done? The difficulty can only be solved by actually experimenting with what the parties have furnished. Telegraphic machinists must attempt to construct machines after each specification, and chemists must apply the chemical agents described by them, in the manner they direct, and then compare the results. When done, the oaths of the witnesses must be read and filed in the case. But this cannot be done now, nor can the examiners, or any one else, testify concerning them and the statute. Hence, if it is not certain that the inventions are dissimilar, the case must go back to the Commissioner, when this all-controlling evidence may be obtained and introduced. If not, the principle adopted in practice by the Commissioner, in doubtful cases of the kind, may be resorted to, and issue a patent to each on the same day, and the one who thinks he is interfered with by the other, may go into the circuit court to test the validity of the one granted to the other. Although Bain would consent to this, not in the least fearing the consequences, still he prefers a full and broad hearing before the grant of letters to either, believing that he, and not Morse, when it is had, must receive a patent on the strict merits of the case. He, Morse, has not, to this day, so far as the evidence goes, completed the invention in controversy, so as to bring it into actual use. The experiment sworn to by his son does not show this, nor hardly an approach to it. There no long circuit, the earth forming part of it, is found. He has not shown that he can really use it in practice. But if he can, it is not the same thing as Bain's. If Morse had actually produced such results as he claims, some of them would have appeared in evidence in this case. If he can produce them, he will accede to the proposition to test the whole matter by actual and scientific experiment, as the only safe guide in this matter. This course would settle the whole matter advantageously and honorably for the parties and country, and avoid that current of feeling which is injurious to all.

Third. The Commissioner should have declared the true date of Bain's patent to be the one appearing on its face, to wit, December 12th, 1846, which was before Morse's application or caveat.

The language of statutes should receive the same interpretation as

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other language on the same subject. Words should be allowed their natural import, and not be made to give a forced construction for any purpose. The true date of a patent is that which it expresses on its face. Any other construction is unnatural and must lead to absurdities. To say that the time of the enrolment of the specification is the date, would be, by our law, to give Bain's patent six months more life than it is entitled to here, or in England. If the English patent dates from the enrolment, then the patentee would be without remedy on account of enfringements between the time of its passing the seal and its final enrolment. By the English law the patentee is entitled to the exclusive right of his invention for fourteen years. This period, by the very terms of the patent, commences with the date of the instrument itself. If it commenced with the date of the completion of the enrolment, it would be so stated in the letters themselves. There must be some time fixed in the instrument from which to commence the period of fourteen years. If the grant were silent on that subject, it must commence from the time it is made. If it were to date from another time, it must so appear in the grant, or be declared by law. But neither appears in this case. Bain's exclusive right cannot be cut down by construction. If his patent bears date from the completion of the enrolment, then he could prosecute for infringements six months after his patent had expired, by the terms of the instrument granting him the privilege. This will not be claimed. A decree is made in chancery, and cannot, by statute, in some States, be enrolled until after thirty days, and then the labor of days and sometimes months, is often required before it can be enrolled and receive the Chancellor's signature. The decree determines rights, and important consequences hang upon it. It is believed to be universally true that it is the date of the decree, and not of the enrolment, which controls. Suppose that Morse's first patent bore date thirty days before the actual enrolment in the Commissioner's office, could he not sustain an action for an infringement committed during that time? And could he sustain such action for the use of his invention during thirty days after fourteen years from the date of his patent? If, in the former case he could sue, and in the latter not, then, upon the same principles, it must be held that Bain's patent took effect from the date of its sealing. The term used in the 7th section of the act of 1836 is "patented," which means, "granted by patent, secured by patent, or by law, as an exclusive privilege." It is formed from the word "patent," which signifies "a writing given by the proper authority, and duly authenticated, granting a privilege to some person or persons. By *patent*, or *letters patent*, that is, open letters, the King of Great Britain grants lands, honors, and franchises. By a similar writing he secures to a person, for a term of years, the exclusive right to an invention." When the royal authority in England had signed and sealed this open letter to Bain, the power to grant was exercised, and the government was concluded by it. Bain then received his exclusive privilege. This he might lose if he did not enrol his specification within six months thereafter. But this enrolment was no more the grant, than

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the recording of a deed for land, which is necessary to prevent title being defeated, is the deed or patent itself. This word "patented" occurs again in the 15th section of the said act, where the meaning is the same. This is rendered quite clear by referring to the 8th section, when it is used with reference to "interfering applications." It provides that the true inventor shall not be deprived of any advantage "by reason of his having previously *taken out letters patent* therefor in a foreign country." This expression cannot be held to refer to the act of enrolling in chancery, but to that which is performed by royal authority in issuing the grant. The 6th section of the act of March 3, 1839, amending the Patent law, removes all doubt on this subject. It abolishes the restriction limiting foreign patentees to six months within which to apply here for letters, and then provides: "That in all cases every such patent shall be limited to fourteen years from the date or publication of such foreign letters patent." This term "date" has its natural and appropriate meaning, and which is, "That addition to a writing which signifies the year, month, and day when it was given or executed." In letters, it notes the time when they are written or sent; in deeds, contracts, wills, and other papers, it specifies the time of execution, and usually the time from which they are to take effect, and operate on the rights of persons. The time when any event happened, when any thing was transacted, or when any thing is to be done, is the date thereof. This is the plain common sense of the matter. The reason assigned by Morse for the contrary construction is fallacious and inconclusive. He says, that unless the patent dates from the time of the enrolment, there is six months during which the public cannot know exactly what is contained in the specification. This suggestion applies with about the same force to his caveat, and his application and specifications, filed in the secret archives of the Patent office.

But the true answer is this: The English statute has placed the matter where it is, and it is not the province of our tribunals to correct their defective legislation, if theirs really is so. By their law, the grant is made with a date, and it takes effect from that time, and cannot be changed by an unnatural, forced, and unnecessary construction. If we establish the date to be the enrolment, then between the actual issuing of an English patent and the enrolment, an American, who should happen to learn the whole invention in the proper office there, might pirate the invention, and apply here and secure letters, to the exclusion of the foreigner, because his invention was not enrolled, or patented, as Morse claims. In such a case, the American applicant, having made and sworn to his application in the usual form, must receive the patent, even if it could be proved that he pirated it, unless there had been a "printed publication describing it," because it was not "patented." The filing his papers by the American claimant is all he has to do to secure his patent, and, by the construction contended for, the Commissioner is bound to grant the claim, and issue the patent, unless one of two things appear, to wit, a foreign patent actually granted therefor, or a printed publication describing the invention.

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These are the only statute provisions which would defeat him. The danger of wrong and injury in this respect is far greater than that which would arise from the fact that people might not know what is patented between the sealing and enrolling. The construction contended for would open a very wide door for mischief, and Bain is of the opinion that the present case is one to illustrate its effects. But there is high authority on this point, concerning the date of an English patent, and one that we hold to be conclusive on the subject. By reference to the report of the Commissioner of Patents for the year 1847, at page 790, will be found memoranda relative to the Patent laws of Great Britain. At the foot of the page there is an N. B., which is in these words, to wit:

"As inventors can abstain from completing their British patents at any stage of the process, it must be observed, that the privilege of British patentees depends *not upon the date of the application, but upon* THE DATE OF THE COMPLETION OF THE PATENT, that is, THE DATE ON WHICH IT WAS SEALED."

Mr. Bain is now authorized to say that, by both reason and authority, the true date of his English patent was the time of its being sealed. The country has been emphatically instructed on this point by the highest and best authority, and one which the Patent office is not at liberty now to dispute.

Fourth. The Commissioner erred in allowing Morse to go into proof of his invention prior to his caveat and application, and at the same time refusing to allow Bain to make proof of his discovery before the date of his English patent of 1846.

At the hearing before him, the Commissioner, under advice, allowed Morse to go behind both his application of January 20, 1848, and his caveat of January 27, 1847, and produce proof calculated to show that he made his discovery prior to the date of Bain's English patent, of December 12, 1846. At the same time he refused to allow Bain to introduce evidence to show that he actually invented the matter claimed prior to the time fixed by Morse's witness as the date of his discovery. While equality is esteemed equity, this discrimination between parties before a tribunal controlled by the rules of justice, must be deemed erroneous, unless required by positive statutory enactments. The natural and common law rights of the parties, are the same when contesting matters before our courts and executive officers. Hence the excuse for this distinction is supposed to be found in, and deducible from, our statutes. If it be true, the legislative power has created such a distinction, whatever we may think of its justice or expediency in a free country, we are bound by it. I assume it to be an indisputable proposition, that unless the statute creates a difference in clear terms, that the parties, in the patent court, stand upon an equal footing in all respects. A distinction is supposed to be created by the 7th, and confirmed by the 1st, proviso of the 15th section of the act of 1836. If not found there, it is not claimed that such discrimination between parties exists. In construing statutes, it is a rule, that the whole act shall be considered to-

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gether, and harmony in its provisions must be produced, if practicable. It is also true, that when natural rights are circumscribed by them, statutes are to be strictly construed. Bain, as well as Morse, has the same right to the product of his hand and mind, and the same right to claim a patent therefor, unless the statute declares otherwise. Hence all these rules apply in the present case. The sixth section of the act of 1836 provides, "that any person, or persons, having discovered or invented any new and useful art, &c., not known or used by others before his or their discovery, or invention thereof, and not at the time of his application for a patent in public use, or on sale, with his consent or allowance as the inventor or discoverer, and shall desire to obtain an exclusive property therein, may make application in writing to the Commissioner of Patents, expressing such desire; and the Commissioner, on due proceedings had, may grant a patent therefor." The section then provides, that before a patent shall be granted, an oath shall be taken by the applicant, that he believes he is the first and original inventor, &c., and that specifications and drawings shall be filed, and a model deposited. In all this there is nothing indicating a preference to one person over another. But when we come to the 9th section, there is a discrimination which requires a citizen, or resident alien, to pay $30, a subject of Great Britain $500, and foreigners of another country $300, for his patent. In this tariff of office fees we see a clear and unequivocal intention on the part of Congress to give our own citizens a marked preference, which is not found in the sixth section. The present question, stripped of all its verbiage, is simply this: Bain comes into the patent court, makes his application, takes the oath required, files his specifications and drawings, deposits his model, and saying that he is a subject of Great Britain, pays his $500 fees, and asks for a patent. If there were no other suitor then, and the Commissioner should deem his invention useful, find that the necessary forms had been complied with, a patent would issue of course. If one should issue and be infringed, he could sue and recover. On such a trial, a question of priority of discovery could be raised by the infringer, and on that issue both parties could give evidence concerning the first discovery. Unless the patentee could establish his claim to the first invention, he could not recover. This would be the common course of things. But Bain finds when his case is called there, that in January, 1847, Morse gave notice to the Commissioner that he should bring in a case, and this notice was filed away in secret according to law, and that in January, 1848, he again came into court and entered his case, which he was not ready to try, and prayed it to be committed to the secret archives. But on Bain's appearance in court, he comes in and says, that the property claimed by Bain belongs to him. This Bain denies. What is the question before the Judge? Bain says, I claim this as my property by right of original discovery. Morse says, he claims it on the same ground. This, in legal parlance, forms *an issue*, that is, *a thing alleged on one side and denied on the other*. This, then, is the real question before this court. It is the one made by the parties themselves in their pleadings,

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to the truth of which each made solemn oath, as required by the act of Congress. The trial commences. The Judge tells Bain, as he is the mover, he must prove that he discovered the invention claimed by him before the caveat of Morse in 1847. Bain produces an English patent, dated December 12, 1846, for what he claims, and rests his case. Morse then swears a witness, who proves his invention in the September previous, and rests his case. Bain then offers to prove that his invention, though patented in 1846, was discovered long before, and that in truth his patent of 1846 was repatenting of one granted to him in 1843 for the same thing, with some additions and improvements not a matter of dispute. To this Morse objects, on the ground that being a foreigner, and having taken out a patent in 1846 in England, Bain is precluded from showing the true date of his discovery. Bain claims that he stands, in this respect, on an equal footing with Morse, which the latter disputes. Both parties appeal to the patent court to decide. It is determined against Bain.

The question is now to be re-examined. It only requires the statement of the case to show that the rule of law has been mistaken. If the decision is correct, then the sixth section, which allows *all* persons to apply and receive patents on the terms specified in it, is a nullity in certain cases. It is a statute contrivance, which secures heavy fees from a foreign patentee, without allowing him a reasonable opportunity of securing a legal right to his invention. It denies him the privilege of proving that he is a first inventor, when the sixth section positively assures him if he is he shall have a patent, if he complies with the forms prescribed. We must bear in mind that the issue is on the first discovery, to which there are two parties with equal claims to justice. This proceeding is not controlled by rules which apply where the case is an ex parte one. The seventh section, upon which much stress has been laid on Morse's side, relates to the duties of the Commissioner when there is a *sole* applicant. It requires the Commissioner to cause the application to be examined; "and if, on any such examination, it shall *not* appear to the Commissioner that the same had been invented or discovered by any other person in this country prior to the alleged invention or discovery thereof by the applicant, or that it had been patented or described in a printed publication in this or in any foreign country, or had been in public use or on sale with the applicant's consent or allowance prior to the application, if the Commissioner shall deem it sufficiently useful and important, *it shall be his* DUTY *to issue a patent* therefor." This section is plain. When the applicant files his application, &c., for an invention which the Commissioner deems important and useful, the latter *shall* issue a patent therefor, unless his examination establishes one of the following objections, to wit:

1. That the same thing had been invented or discovered by any other person in this country, prior to the alleged invention or discovery by the applicant. Or

2. That it had been patented in this or some other country.

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3. That it had been described in a printed publication in this or some other country.

4. That it had been in public use, with the applicant's consent or allowance, prior to the application.

5. That it had been on sale, with the applicant's consent or allowance, prior to the application.

If either of these obstacles presents itself, the Commissioner cannot issue a patent; but if they do not, he is bound to grant it. Had Bain's invention been patented, or described in a printed publication, or been in public use, or on sale "prior to his alleged invention or discovery"? This is not pretended. If not, then the question is narrowed down to the simple one, whether the same thing had been discovered by any other person prior to his alleged invention or discovery? Great emphasis has been laid upon the words "in this country;" but they have no bearing upon the point in issue. Without them, the American invention would be protected equally as well. Strike them out, and then the patent must be withheld, if there was a prior discovery by "any other person." But, as they now stand under this part of the section, a prior foreign discovery is no bar to the issue of the patent. As the provision stands, the question is, whether there was an American invention of the same kind prior to Bain's *discovery*? If there was not, then he must have a patent. The section does not say that, if there was a like American invention prior to the *granting* a *foreign patent*, that one shall not be issued to the foreign patentee. The prohibition is confined to the discovery of an American invention prior to the *discovery* by the applicant, whether that applicant is an American or foreigner.

The next sentence of this section confirms this view. It provides as follows: "But whenever, on such examination, it shall appear to the Commissioner that the applicant was *not* the *original* and *first inventor* or discoverer thereof, or that any part of that which is claimed as new had *before been* INVENTED, or DISCOVERED, or PATENTED, or *described in a printed publication* in this or any foreign country, as aforesaid, or that the description is defective or insufficient, he shall notify the applicant thereof, giving him briefly such information and references as may be useful in judging of the propriety of renewing his application, or of altering his specification to embrace only that part of the invention or discovery which is new." This provision makes it the duty of the Commissioner to pass upon the question of the *first invention*, as well as whether it had been *patented*, or *described in a printed publication*. If either of these facts are found against the applicant, the Commissioner must refuse a patent, from which decision an appeal is provided to this court, which is to pass upon the particular grounds of his decision, to wit, the *first invention*, patenting, or publication.

This section, then, presents no obstacle to Bain's receiving a patent. As the case stands, under this section he was entitled to one; and most clearly he is not debarred by it from showing the *real* date of his discovery or invention, which does not distinctly appear in his application.

He must, under this section, have the same right to go back and

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show the real facts, as Morse. But it will be seen that this section does not provide for *interfering applications*, and does not suppose that there is more than one party in court.

The first proviso of the 15th section has been invoked to aid Morse against Bain in debarring him from proving his invention to have been prior to that of the former. This section relates to the trial of causes where it is claimed there has been an infringement of the rights of a patentee. It provides that the defendant may plead the general issue, and give the act and the special matter in evidence, upon notice being given to the opposite party. Then, numerous defences are particularly specified, and are as follows, to wit:

1. That the description and specification does not contain the whole truth relative to the invention, or that it contains more than is necessary, and that the concealment or addition should appear to have been for the purpose of deceiving the public.

2. That the *patentee was not the original and first inventor or discoverer of the thing patented*, or of a substantial and material part thereof claimed as new."

3. That it had been *described in some public work* anterior to the supposed discovery thereof by the patentee.

4. That it had been in public use or on sale with the patentee's consent.

5. That he had surreptitiously or unjustly obtained the patent for that which was in fact invented or discovered by another, who was using reasonable diligence in adapting and perfecting the same.

6. If an alien, at the time the patent was granted, had failed and neglected for the space of eighteen months from the date of the patent to put and continue on sale, to the public, on reasonable terms, the invention or discovery patented.

It further provides, that when a defendant relies in his defence on the fact of a *previous invention, knowledge, or use* of the thing patented, he shall state in his notice the special matter, and the names and residences of his witnesses. Certainly, neither of these provisions have any connexion with the right to *issue* a patent. Then comes the proviso, which is supposed to bear upon it. It provides "that where it shall satisfactorily appear that the patentee, at the time of his application for a patent, *believed* himself to be the first inventor or discoverer of the thing patented, the same shall not be held void on account of the invention or discovery, or any part thereof, having been known or used in a foreign country, it *not* appearing that the same, or any substantial part thereof, had been *patented* or *described* in any printed publication."

This provision saves those plaintiffs from having their patents declared void, who, when they applied and obtained their patents, believed themselves to be the first inventors; but where it turned out that their invention was *known or used* abroad, unless it should appear that a substantial part thereof had not been patented or described. If this patent is issued to Morse, and it shall appear that he believes himself the first

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inventor, though it may be proved on trial not to be so, his patent shall not be *declared void* on that account, unless the thing had been *patented* or *described* in a printed publication before his "patent." It is certain that the thing was "patented" before Morse applied. If issued, on a trial it would be "held void" within the very terms of this provision. But it would not be void, merely because it "had been" *known or used "before in a foreign country."* That consequence only follows when it has been *"patented"* or *"described in a printed publication."* But it does not provide that the plaintiff can *recover* in such a case against the defendant. On the contrary, in the preceding part of the section, a prior discovery by *any one* is made a good defence. The words are, "in either of which cases judgment shall be rendered for the defendant with costs." In the latter case the patent may be *declared void;* but not in the former. This section, then, makes for and not against Bain, even in the case of a trial. But it does not prescribe any rule concerning the *issue* of patents. It simply provides for the trial after they are granted, and discloses the consequences. If a patent is issued to Bain, and it appearing that he believes himself the first inventor, and he sues Morse for an infringement, he will recover, unless the latter can show that the invention was in use or known, or had been *patented* or *described* in a printed publication before Bain's *discovery*. Unless he should on such a trial shut out Bain's testimony, as he claims the right to do, he could prove nothing, and consequently would fail. On such a trial, there is no law to prevent Bain's proving that he was the first inventor. But the 15th section contemplates and provides for this very issue, and declares the consequences of the trial. Shall such testimony as is offered by him be shut out on the question of issuing a patent, when it would be admitted on a trial concerning its validity? This cannot be done unless there is a statute requiring it. This disposes of the sections which have been relied upon against Bain. Neither of them contains any provision for a case of INTERFERENCE *before the Commissioner*.

The 8th section provides for such cases. It requires the Commissioner, when he thinks an application interferes with a former patent or pending application, to give notice to the former patentee or applicant; "and if *either shall be dissatisfied with the decision of the Commissioner on the* QUESTION OF PRIORITY OF RIGHT OR INVENTION, *on a hearing thereof*, he may appeal from such decision, on the like terms and conditions as are provided in the preceding section of this act; and the like proceedings shall be had, to determine *which* or *whether either* of the applicants is entitled to receive a patent as prayed for. But NOTHING *in this act contained shall be construed to deprive an* ORIGINAL INVENTOR *of the right to a patent for his invention, by reason of his having previously taken out letters patent therefor in a foreign country*, the same having been published at any time within six months next preceding the filing of his specification and drawings."

This six months provision is changed by the act of 1839. It will be seen that it is made, in this section, the express duty of the Com-

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missioner to decide this identical question of priority. It is the very point which is necessarily involved in a question of interference. No other question can be raised or passed upon. There can be no utility in calling the parties before the Commissioner, unless he is to pass upon it. The appeal from his decision is, by the words of the section, to be "on the question of *priority of right or invention*." This shows that the question of priority of invention was before him. How could he decide that question, without allowing the contesting parties to produce their testimony? How can one party be limited in this right more than the other? This section contemplates the possibility of neither of the parties being the first inventor. The hearing may show that a third person, not asking a patent, may have made the first discovery. If so, both parties must leave court without a patent. But the provision saving to inventors, who first secure patents abroad, all their rights is conclusive on this point. It declares that *nothing* in the whole act shall deprive the *original* and *true* inventor of his right to a *patent* by reason of his having taken out letters patent therefor in a foreign country. This forbids the construction now claimed in behalf of Morse. This puts the foreign patentee upon the same footing as any other person. He stands the same as if he had not taken out a patent abroad. This section is express on that point, and too clear to be the subject of elucidation. The *original* and *true inventor* shall *not* be deprived of his right, whether he is an American or a foreigner, or has or has not taken out a patent. There is no discrimination between them, and the provision says that nothing in the act shall make any. It contemplates a trial before the Commissioner upon the very point of first invention, because in the case of interference that is the question. In this respect, this section differs from the seventh, where the patent issues unless there is a prior invention in this country, or a patent or printed publication. That was the very issue made by the parties for him to try. The ruling that Morse could go back and prove his first invention, and that Bain could not, was against the express provisions of this section, and contrary to all the recognised rules established to promote and secure justice on trials. By it, Bain is prohibited from the enjoyment of a right that the 8th section of this act secures to him in terms. On this point, then, the Commissioner's decision must be reversed, and the case remanded to him to hear the evidence, at such reasonable time, and upon such notice, as shall be proper and just; and should it become necessary to do so, commissions should be issued to take testimony, as shall be necessary to elicit the truth and secure justice to the parties.

If it shall turn out that this invention was described in a printed publication, before Morse's discovery, the Commissioner is bound to take notice of it at any time before the actual issuing of the patent to him. This is documentary evidence, which the law presumes to be in the possession, and known to the Commissioner. By law he is not permitted to issue a patent where such a publication has been made. When he knows of its existence his authority ceases, and a patent issued

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afterwards would be unauthorized and valid, as he acts solely by virtue of statute power which creates this limit upon him.

Fifth. The testimony offered by Bain, to show priority of invention, ought to have been received, as well as that which was intended to show Morse's invention not one of practical utility, or identical with his own.

The manner of conducting this case before the Commissioner, which was designed to promote the convenience of the parties, renders it somewhat difficult to determine precisely what evidence was offered by Bain. It is certain he offered his patent of 1843. As it was duly authenticated, according to the forms required by the English law, it was competent evidence to show the time when it was granted, equally appropriate and conclusive with that of 1846, which was admitted. Its rejection was erroneous. It may be said, that it was not the same as the disputed claim in that of 1846. Bain claimed that it was; and had he been permitted to go behind his patent of 1846, to show priority of invention, would have proved it to be so. When all proof on that point was cut off by a positive decision, it was useless for him to offer it in detail to establish particular facts. Every fact tending to this point was excluded by a general ruling out of the whole question. Bain now has the right to affirm that he could and would have offered and produced the precise testimony required, but for this general decision against the admissibility of all testimony on that question.

If Bain's patent of 1843 is identical, in its leading principles, with that of 1846, then there was in fact proof before the Commissioner of his discovery before Morse. On the question, whether the two were identical or not, no testimony was taken, I believe, by either party. Bain assumed that they were alike, and the Commissioner that they were not. That was a question of fact which called for testimony, and could not be determined without it. It was determined as a matter of opinion. The effect which the Commissioner intended to give on this point does not appear from the papers to have been communicated to, and understood by, Bain. He believes he can (and now proffers if permitted) establish their identity by proof, so far as the leading features are concerned. If he establishes it to be so, then he shows by his letters of 1843 that he invented and brought into use the discovery in dispute before Morse. Unless technical rules are to be introduced and applied to the rights of a class of men unaccustoned to such things, not in accordance with the liberal practice long in use in the Patent office, Mr. Bain must be allowed the opportunity to go before the Commissioner and establish this controverted point. Bain filed with the Commissioner a statement relative to these interfering claims, bearing date August 26, 1848, in which he goes over nearly the whole of the questions of fact, and much of the scientific ground, and contests Morse's positions on nearly every point; and to this statement reference is made, and it is adopted as a part of this paper. Near the end of it Bain proposes to make the following proof, to wit:

"I would now add, that if Mr. Morse contests my statements, as

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regards the usefulness of his chemical compounds, I stand ready and prepared, on a full and proper arrangement, to go into an effectual trial of those compounds for such purposes."

Again:

"The points at issue are, has Mr. Morse, at this time, his invention in a state to transmit and record permanently marks that can be referred to and read at any future period of time? Does he do this by direct action of the currents of electricity passing through a long telegraphic line? I submit that he shows no sufficient proof of this whatever."

These extracts show that Bain claimed Morse's instrument to be different from his own, and quite useless for practical purposes, and that he offered to go into a trial of them to test that fact. It is inferred that he did not contemplate introducing witnesses to testify before the Commissioner, but to have scientific men test the matter in manner to establish the point one way or the other. This was the fairest possible manner of arriving at the truth. To this offer, though made about two months before the final decision, I find no response by the Commissioner. His not acting upon it is equivalent to determining it against Bain. The Commissioner seems to have disposed of the matter without special reference to this point. Bain claims that the not allowing this examination, investigation, or proof to be gone into, has resulted in injury to him. As it was error in not allowing him to do so, this case must be sent back with directions to receive all proper evidence on that point. This is demanded by the highest considerations. The object of these trials, or investigations, before the Commissioner is to settle disputed matters, if possible, without resort to the courts of justice, and long, tedious, and expensive litigation. If there are grounds to doubt the propriety of the decision of the Commissioner, it is best for the interest of all parties that the case should be sent back for further proof on this point.

Dated December 22, 1848.

ALEXANDER BAIN,
By R. H. GILLET,
His attorney and counsel.

To be filed with Commissioner of Patents.

[Additional reasons of appeal by Bain.]

The following views are presented as not having been fully referred to in my statement of this forenoon, because it was then supposed that they could be offered in person or by counsel at the hearing.

Of the evidence adduced by Mr. Morse, that of Messrs. Bloodgood & Munson comes first. Of these neither proves any the least application to a use up to 1846.

The Christian Observer of 25th May, 1839, if it proves any thing at all, goes to show, that in 1832, Mr. Morse being pleased with Dr. Jackson's suggestion, proposed that they should make the experiment together. If this is not using Dr. Jackson's suggestions, and claiming them afterwards, it is not known what the evidence means; for certainly this is the amount of Mr. Morse's own statement, and no evidence appears of his having made any invention.

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The evidence of Mr. Morse, junior, conclusively shows, that in Sept., 1846, Mr. Morse, sen'r, was still experimenting, and that though Mr. Morse, jr., did make certain marks by the chemical action of galvanic currents on some substance, he does not say how that substance was prepared or how applied, and does not say one word about permanent marks; and he closes his testimony by stating, that his father told him to keep it secret, as the invention was yet imperfect.

The evidence of Mr. Kent only shows the purchase of chemicals after the time alluded to by Mr. Morse, jr., not what was done with them.

Mr. Morse states that he entered a caveat in January, 1847. But he does not apply for a patent until January, 1848. This whole year is left by Mr. Morse without the least proof of any progress in the invention he claims as his own, and this in connexion with the fact that Mr. Bain's whole specification was published in the London Mechanic's Magazine of July, 1847, six months before Mr. Morse's application for a patent.

If, in the course of his proceedings, Mr. Morse had ever completed such an invention, is it to be believed that he would not only have neglected to prove the naked fact, but also that he had put it to practical use with a long wire, having such ample opportunity on one of his own telegraphic lines. But so far is Mr. Morse from having arrived at any such practical use or proof of his invention, it is only needful to examine his specification and drawings to prove that, in this respect, he has made no practical and useful invention down to the present time.

Thus stands the case, so far as the chemicals are concerned.

But Mr. Morse's *claim* embraces another and most important element, with which there is declared to be an interference by the claim and specifications filed on my part.

It is the *use of a single circuit of conductors* in the making of marks or signs on chemically prepared paper. We both claim this invention, though I alone show the long telegraphic circuit practically. It is an essential and most important part of each of our applications for a patent. Both of us set it out clearly and unequivocally in our *claims*, but *I alone set it forth in the specifications*. It is, then, a simple question of *priority*, to be decided by the Patent office upon the evidence filed or produced in the case.

Now, how stands the *proof* in regard to priority in this use of a *single circuit* of conductors? In order to show, *by record evidence*, a date at which (to go no further back) I had brought to maturity this plan, I adduce my English patent, granted in 1843, in which is clearly and specifically set forth, the marking of signs on chemically prepared paper, &c., *by means of a single circuit of conductors*. This throws upon Mr. Morse the burden of proving that, *prior to that time*, he had discovered and put to use the same application of the *single circuit*, or else he fails in establishing his pretensions. Now, has he done this? So far from it, that there is not one word of proof in the whole evidence adduced by Mr. Morse, that prior to 1843—nay, I may say, prior to 1848—he even hinted at the use of a single circuit of conductors in con-

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nexion with his "conception" of the application of the decomposing power of galvanism to the chemically prepared paper, &c. The first mention of the single circuit of conductors is made by Mr. Morse himself in 1848, in the preamble to his specification at that time filed, in which he speaks of his *recent* discovery of a means of successfully applying the same.

Particular attention is earnestly requested to this point, on the part of the honorable Commissioner of Patents, as it is deemed to be entirely decisive of the question of priority between Mr. Morse and myself.

Respectfully submitted, ALEXANDER BAIN.
Exam'd, W. W. S.
Saturday, Aug. 26, 1848, Washington, D. C.—920.

Mr. Gillet. The object of the whole of these reasons is to shew that it is the duty of this court to send back this case to the Commissioner for a rehearing, and for the reception of further testimony.

Having now finished the reading of the reasons of appeal, I would state to your honor, that both the models of Mr. Bain's and Mr. Morse's machines are ready, in court, for your inspection and examination.

Mr. Kendall. Before that examination is made, I propose that Dr. Page be sworn as a witness, and permitted to explain the principles of the machines.

The Judge assenting—

Dr. Page, examiner in the U. S. Patent office, was thereupon duly sworn, (the oath being administered by the Chief Justice.)

The models of Mr. Morse's and Mr. Bain's machines, deposited by them respectively in the Patent office, were now set before the Judge.

He proceeded first to examine that of Mr. Morse.

Mr. Gillet. We say that such a machine as Mr. Morse claims would not be made from the drawings and specification filed by Mr. Morse, nor from this model. This model shews no machinery for opening and closing the galvanic circuits.

Mr. Kendall. That is not claimed by Mr. Morse; it was discovered, and has been used, long ago.

Mr. Kendall here read Mr. Morse's claim, which is as follows:

"What I claim as of my own invention and improvement, and desire to secure by letters patent, is—

"The use of a single circuit of conductors for the marking of my telegraphic signs, already patented, for numerals, letters, words, or sentences, by means of the decomposing, coloring, or bleaching effects of electricity acting upon any known salts that have a mark, as the result of the said decomposition upon paper, cloth, metals, or other convenient and known markable material.

"I also claim the invention of the machinery as herein described, for the purposes of applying the decomposing, coloring, or bleaching effects of electricity, acting upon any known salts, as herein described.

"Washington, January twentieth, eighteen hundred and forty-eight.
SAML. F. B. MORSE."

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The model was then explained, and its operation exhibited by Messrs. Kendall and Morse, the Judge looking on, and occasionally putting a question. A strip of white paper was made to pass between the rollers, and the manner of marking it was explained. There were several detached pieces of the machine, wrapped in separate papers.

Mr. Bain's model was then exhibited and explained by Mr. Gillet and Mr. Rogers. A strip of perforated paper, previously prepared, was made to pass over a roller and under a stylus, to shew the manner of marking by it; also, how the same communication might be simultaneously sent to six different stations.

Mr. Gillet. There is, in a room above, a working model, of the full size, of Mr. Bain's machine, ready to be exhibited to your honor; an inspection of which will enable you better to comprehend its construction and manner of operation, than any thing I can say.

The court thereupon adjourned to an apartment in the City Hall, known as "the Jury-room," where the model was ready, and where it was put in motion and made to work. Two batteries were prepared with connecting wires to form the circuit. Paper, chemically prepared and colored, was made to pass through under the stylus, and to receive marks by decomposition of the coloring matter, the point of the steel stylus being itself also decomposed, from the passage of the electricity through it and the paper. The strips of paper thus marked were examined by the Judge.

Mr. Gillet. Mr. Morse cannot, with his roller, produce marks like these, which are produced by this steel pointed stylus. His marks and dots are made, not by a point, but by a small roller; and he cannot make marks like these by it.

Mr. Kendall. Yes, he can; I have myself seen it done.

The court now returned to the court room.

Mr. Bain's model was again shown to the Judge.

Mr. Rogers. Here are provisions for transmitting the same message to six different stations at one and the same time.

Judge. Then there must be so many different wires, must there not?

Mr. Gillet. Yes. The message, or other communication, being first marked by perforations on a strip of paper, can then be multiplied and sent to different stations at once. Your honor sees the difference between Bain's machine and Morse's. Morse's marks by a roller, which may slip over the paper in case of any obstacle on the paper. and is liable to become clogged and not to move; Bain's marks by a steel point, not subject to these defects. Bain's stylus is of steel, and its point is continually being decomposed as it operates on the paper. Morse's roller is of platina, and is not. The steel of the stylus combines with the coloring matter of the paper to produce the mark. Mr. Morse asks a patent for making "*his*" alphabetical signs "previously patented by him;" Bain's signs are different from his. Morse describes his signs by indentation; Bain by a change of color. Morse has no patent for making signs in this manner. His marks are by indentation, and they *cannot* be made by Bain's machine. Here is a plain

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difference between the two. It is true that Morse has a machine with a pin which discolors paper, but it is not like Bain's, which is for marking by chemical decomposition. His machine is incompetent to fulfil the purpose set forth in his patent. Bain does not claim indentation at all. Morse claims to make his marks by ink let down on the paper; Bain does not claim that, but claims to mark his paper by a chemical decomposition and consequent discoloration.

I will now state some preliminary propositions in this case, most of which are undeniable.

I assume the following: 1. The decision of the Commissioner that Bain was entitled to a patent was final against Morse. Morse has not appealed from any portion of it. In such proceedings the decision is final, except it be appealed from.

2. The Commissioner's decision that Bain's invention is patentable is conclusive against Morse. Bain filed a specification, accompanied by drawings and a model. The machine would answer the end claimed by him. It was new, useful, and important, and Morse cannot now controvert that.

3. If Morse's and Bain's claims are not identical, there can be no interference.

4. If Morse's claim is not new, or useful, or practicable, it cannot be patented.

5. If his claim consists in the combination of old materials, and if Bain's combination of the same materials be different from Morse's, then Bain is entitled to a patent.

6. If their claims are identical, then the first inventor is entitled to the patent.

7. Under the statute, Morse's filing a caveat was itself an admission that his invention was then not complete.

8. If his claim now is identical with his caveat, then, by his own showing, his machine is still imperfect and impracticable.

9. An application, though in proper form, if filed in the secret archives of the Patent office, is not a legal application; and is not complete till it is made so by a specification, drawings, and model.

We have the certificate of the Patent office that Morse's model was not deposited till the 15th of August, 1848. Then his application was not an application within the meaning of the law, prior to that day.

It follows that there was no interference between Bain's application and Morse's on the 18th of April, 1848, there being, at that time, no legal application by Morse; and the Commissioner was therefore bound to issue a patent to Bain. He would not issue one to Morse because his application was imperfect, and so continued to be for two months after. Hence we insist that the alleged interference is not sustained as a matter of fact and law combined. There can be no interference unless there is a previous application or a previous patent. Morse's was not a valid application, because it was not complete; it was not an application under the statute. To be legal, it must be open to all.

The Commissioner decided that Morse's application must be filed in

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the secret archives of the office, because it was accompanied by no model, and so was incomplete. Therefore, we insist, there was no interference.

Another consequence will follow. The Commissioner concedes that if there had been a patent actually issued for Bain's invention at the time of Morse's application, then he could not have issued one to Morse for his. Now, take the 6th section of the act of '36, and how stands the case? Was there a patent actually issued at the time of Morse's application, or not? The section says: "That any person or persons having discovered or invented any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvements on any art, manufacture, or composition of matter, not known or used by others before his or their discovery or invention thereof, and *not, at the time of his application* for a patent, in public use or on sale with his consent or allowance," the Commissioner may issue a patent.

Now, even under the Commissioner's strained interpretation of law as to the true date of Bain's patent in England, still there was then, at the time of Morse's application, an actual patent in existence, which the Commissioner and Mr. Morse say is identical with Morse's claim. It is conceded that in June, 1847, Bain had a patent for the same invention. The caveat of Morse was not entered till January 7, 1847, and his *application* was not *completed*, by the depositing of a model, till August, 1848. Therefore there was a patent actually in existence at the time that Morse applied; and the Commissioner concedes that if there was a prior application for the same thing Morse could not have been entitled to a patent; but Bain's application *is* prior, and therefore Bain ought to have got his patent.

I assume that the thing claimed by Morse is not patentable under the statute; and if so, it cannot be the subject of an interference. The question of interference cannot arise unless the thing claimed is patentable. It is absurd to say that one claim interferes with the other because the claims are identical, and yet at the same time to say that there cannot be a patent for one of them. If we can show that Morse's invention is not patentable, then your honor will be bound to decide that there is no interference. When the claiming parties were before the Commissioner, and Bain produced his claim, and Morse said it interfered with his, the *onus probandi* was on Morse; for Bain denied that there was any interference. It was for Morse to show that the two inventions were identical. It was not obligatory on Bain to prove a negative; the affirmative proof lies on Morse. But he has produced no evidence that the two were identical; and that cannot be proved otherwise than by an actual inspection and comparison of the two machines.

The Commissioner, in his assignment of reasons for his decision, has some allegations which I will go over briefly.

The Commissioner assumes, on the question whether the specification, drawing, and model filed by Mr. Morse were sufficient to enable

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a machine to be constructed from them, to be himself the sole judge, and also on the question of interference; and he having decided that the claims of Bain and Morse interfere, there is, according to him, an end of the matter. This we deny, under the law. The statute gives him no such authority. He is the creature of the statute, and has no power to bind or unbind, but what the statute gives him. He has no authority to judge and decide where the statute does not say he has; and it gives him no such authority.

He assumes the broad unequivocal proposition, that there may be a conflict between two inventions where the ends are the same, but are produced by different means. This we deny; and, in support of that denial, we shall produce authority of the very highest distinction. In other words the Commissioner contends that he can give a patent *for an* EFFECT, and then no man can obtain a patent for that effect, though he accomplishes it by different means; so that, if a man patents an effect, the whole world must stand still, in relation to that effect, for fourteen years, lest they should interfere with his patent. According to this doctrine, if Mr. Morse had invented a machine the most clumsy that could possibly be contrived for producing a proposed end, and another man should afterwards invent another mode of accomplishing it as simple as this machine of Mr. Bain's, Morse could prevent the use of it for fourteen years, though it might be worth to the public an hundred times as much as his.

The error, in such a position, lies in this assumption that the Patent law was enacted solely for the benefit of the patentee; that it looks solely to securing to him a monopoly of his invention for a term of years, with a view to benefit him alone; whereas the truth is, that that law was enacted for the advancement of science and the general good of mankind. It looks mainly to these great and beneficent public ends, and not solely to the benefit of the patentee.

We shall show, from Kent, from Story, from McLean, from Woodbury, from Washington, from Baldwin, and from the decisions of the whole bench of the Supreme Court, that a man cannot have a patent for an *effect*, but only for the *means* of producing it; and that any other man may produce the same effect, provided he uses different means to accomplish it.

The Commissioner says that neither of the parties before him claimed a long or a short circuit, using the earth as a part of it. I am bound to believe that he could never have read the papers in the case. The fact is, that both in Bain's specification and drawings that claim is stated as clear as the sun. Bain claims the long circuit, the earth constituting a part of it.

[Here Mr. Gillet exhibited to the Judge the drawings accompanying Mr. Bain's patent, in which the long circuit is represented and the word "earth" is expressly mentioned. He also quoted Mr. Bain's specification, as follows:]

"While the machine is working, the electric current passes into the clock-work; thence, by the screws 68, to the plate *f* 2 (fig. 12;) thence,

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by the binding screw 69 and wire *f* 3, to a copper plate, which is to be *buried in the* EARTH at the nearest convenient point to the instrument; the current then passes, *by the moisture of the* EARTH, to the negative pole of the source of the electric power."

Here your honor perceives that the fact is directly contrary to the Commissioner's allegation. The earth is mentioned in both specification and drawings, and in this respect Bain's invention differs from Morse's. The difference between them is, in fact, complete and total; and, as they are not the same, it is physically impossible that they can interfere. There is no such current found in Morse's specification; he sets up no such thing.

The Commissioner further says, that the use of telegraphic signals, as claimed by Bain, is not new, the same having been patented by Morse. That is not in this case, if he ever did obtain a patent for them. I cannot find that Morse ever patented signals, such as those of Bain. His signals are different from Bain's; and, until this court shall decide that Mr. Morse may patent an effect, and that no man can use dots, lines, and spaces as signals, because Mr. Morse has used certain particular dots, lines, and spaces of his own, there can be on this ground no interfence. Because Mr. Morse has used or made an alphabet of signs, can no other man make and use an alphabet of signs also? Mr. Morse cannot patent an *effect*. He may employ one mode of constructing telegraphic signals, and another man may employ another, of different signals. He is not to stop all investigation and all improvements in telegraphic communication during the whole duration of his patent.

The Commissioner says that the single circuit was patented by Morse. It is not in this case. Morse has not patented a single circuit, of which the earth forms a part.

Again, the Commissioner says, that he cannot know what a foreign patent is for, and what it covers, unless the specification of the invention patented is enrolled. It is true that he cannot know the details of the invention until that is done. If Mr. Bain had asked the Commissioner for a patent, he would not have got it till he filed his specification. But what business has the Commissioner to inquire whether Bain's specification was enrolled or not? How could the public know what was in Morse's caveat, or in his specification, till they were brought to light from the secret archives of the Patent office? The world was as much entitled to know what was in Morse's caveat as in Bain's specification. The caveat was filed in the secret archives according to a provision of the statute. But the statute does not say that you can file an application in the secret archives; you may a caveat, but not an application, and Morse's was no application till it was made public. Whether the Commissioner could or could not know what was in Bain's specification is of no consequence, because he was not obliged to know. The English law says, that a patent is complete when it is sealed. Such patent is indeed technically called the "title," but it must set forth a clear statement as to what the invention is for which the patent is granted; and if the specification when filed does not follow that statement, but differs from it, the patent is void.

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The clause in the Commissioner's own report to Congress of 1847, which declares that in an English patent the date of the sealing is to be taken as the date of the patent, is answered by the Commissioner, by declaring that that part of his report was given on the authority of an English commissioner, and that the English commissioner has made a mistake; but why did not the Commissioner, when he made his report to Congress, know that fact as well as he knows it now? Why did he suffer that English commissioner, through an official report, to mislead the public? Where is the evidence of this alleged mistake? There is none, and I shall show that it is no mistake. So far was Mr. Burke from being misled by the English commissioner, that in his "Information to Patentees," he has himself instructed them to the same effect.

Here are his words, "the letters patent issued in this country, for inventions patented abroad, *bear date with the foreign patent.*"

Here then I show that the Commissioner's own information to patentees contains the same statement with his report to Congress. That the rule of the Patent office was intended to be changed to meet this case, or in consequence of it, would seem to appear from the fact that, in a recent copy of the Commissioner's "information," he has run his pen through this clause.

Now the English law is just as Bain understands it to be. I have here the form of an English patent, and its language is, that the patent is to run "for fourteen years from the DATE of these presents." (Mr. G. produced and quoted an English patent.) If the Commissioner's doctrine is correct, this difficulty will occur—during the first six months of Mr. Bain's patent of 1846, he could not sue for an infringement of that patent, because it was incomplete, and was no patent, till the specification was enrolled. And as his patent is to run for fourteen years, Bain could sue for an infringement six months *after* his patent had expired! A splendid absurdity! Fourteen years from what Mr. Burke makes the true date of the patent would overrun the legal duration of the patent by six months; for the patent runs only fourteen years from the *day of its date*.

The Commissioner then advances this other very extraordinary proposition; but here, to guard against misapprehension, let me say, that I believe Mr. Burke to be as candid and as honest as any other man I know, nor would I be understood as saying, or insinuating, that he has acted in any other than a perfectly honorable manner in this whole matter. He is, I doubt not, perfectly sincere in his intentions to do all that is right; but on this point he has fallen into an error in law, as he has elsewhere into an error in fact. Nor is it at all strange that he should do so, in a case involving such a mass of papers as these. It will be extraordinary indeed if we do not, ourselves, fall into similar mistakes.

The extraordinary position I allude to is this: he assumes that he cannot refuse a patent to an American inventor, even where there is an older foreign inventor, if that older invention has not been patented or publicly described. In such case, though the foreign invention be of older date, it must yield to that of the American inventor. This I deny;

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and I will show directly the contrary, by the decisions of the ablest judges in this country. I have as many as thirty different authorities to show that in this position he is entirely mistaken. It has been held by all these high authorities that a man must be the first inventor *as to all the world*, or he cannot be entitled to a patent.

The Commissioner holds that in the case of an American claimant originality alone is sufficient. That we deny. He says, that in this position he is confirmed by the 15th section of the Patent law of 1836. We say it does not sustain him ; on the contrary, that, if read with care, and with a knowledge of the course of legal proceedings, it shows just the contrary.

He says that he cannot be bound to grant a patent which the courts would declare void. In this position we fully agree with him. That is our ground. And I have now got to the position which I have been desiring from the start. If I can satisfy your honor that Morse could not recover against Bain for the use of his invention, then a patent to Morse cannot issue. That is precisely our ground ; the Commissioner is right ; and it shows that a patent to Morse, if it should issue, would be of no more value than so much blank paper.

I refer to the statute. What must Morse's invention be, in order to stand? (for it is conceded that Bain's patent stands, if Morse's does not.) It must be " something new and useful."

"Sec. 6. Any person or persons having discovered or invented any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvement on any art, machine, manufacture, or composition of matter, not known or used by others before his or their discovery or invention thereof."

Now, I ask, has Morse invented any thing new? Has he invented the long circuit? No. Has he invented the key to break the circuit? No. Has he invented the chemically prepared paper? No. Has he invented any prepared paper that can be used? No. Has he invented the round metallic drum? No. (As " Davy's Researches will show.) Has he invented that roller? No. Has he invented any one thing that is " new and useful?" No. I say, no. There is not a solitary thing in his machine which is either useful or new. The Commissioner himself does not pretend that any one new thing has been invented by Morse.

I now refer your honor to the Repertory of Patent Inventions, vol. 12, p. 39. This contains English patents, and among them your honor will find one granted to Davy, which is accompanied by a plate: I have it here. There is the large drum of Morse's machine with five platina rims. (Mr. G. pointed out several other parts in Davy's plate.)

Here, then, we show, from the Commissioner's own admission, and from a previous patent to Davy, that there is nothing *new* in Morse's invention ; but, unless it is both " new" and " useful," it cannot take a patent under the statute. The words of the law are these:

" Sec. 6. And be it further enacted, That any person or persons having discovered or invented any *new and useful* art, machine, manu-

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facture, or composition of matter; or any *new and useful* improvements in any art, machine, manufacture, or composition of matter, *not known or used by others before* his or their discovery or invention thereof," &c.

And another clause in the same 6th section of the law requires:

"But before any inventor shall receive a patent for any such new invention or discovery, he shall deliver a written description of his invention or discovery, and of the manner and process of making, constructing, using, and compounding the same, in such full, clear, and exact terms, avoiding unnecessary prolixity, as to enable any person skilled in the art or science to which it appertains, or with which it is most nearly connected, to make, construct, compound, and use the same."

Now, I ask, have these requirements of the statute been complied with? I have shown that his things are not new, and if not new, can they be patented? Again, I ask, has he exhibited such drawings, and deposited such a model, as would enable one skilled in chemistry, electricity, and mechanics, to make the machine; and such as show how it is to be used? I say he has not.

Your honor may take Morse's application, and compare it with his specification, drawings, and model, and you can yourself judge whether from these such a machine as he claims to have invented can be made.

But there is a preliminary objection which, of itself, puts an end to Morse's application, and which is not itself a matter of discussion; it is this: The statute requires the applicant for a patent to file in the Patent office with his application a specification and drawings *signed* by the applicant and *witnessed by two witnesses*. He shall, furthermore, accompany the whole with a drawing or drawings, and written references, where the nature of the case admits of drawings"—"which description and drawings, *signed by the inventor, and attested by two witnesses*, shall be filed in the Patent office." This has not been done.

This paper which I exhibit to your honor is produced here as the drawing which accompanied Mr. Morse's application. I ask whether your honor can tell, from looking at this paper, that it is Mr. Morse's drawing? You cannot. There is nothing on it to mark it as his. No signature—no witnesses. True, a gentleman who is here from the Patent office wrote here, yesterday, the name of Mr. Morse on it; before that, it was without signature, or other intimation whatever that it was his. It does not, on its face, purport to be Morse's drawing. The law requires a signature and two witnesses; here is neither. Now the drawings accompanying a specification constitute a part of the specification. There is the same propriety in requiring the drawing to be authenticated by witnesses as the specification itself; there is the same necessity of guarding it against frauds, as there is to guard the specification. There is the same need to prevent the substitution of one paper for another. This paper has no signature—no witnesses—no authentication of any kind. It is not attached to the specification, so as to get the benefit of a witness in that way. It is not signed, not witnessed, not identified or authenticated in any way. I say, then, that the statute has not been complied with.

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He has shown what professes to be a model; but has he shown how it works? He has exhibited before your honor a bit here and a bit there; but I ask, if his patent expired to-day, could your honor, from those loose scraps lying there before you, understand what his machine is? I think not. Is there any thing in his specification to tell how these different parts lying there, wrapped in papers, are to be put together? No. Can these pieces be imitated and enlarged, so as to make a machine of full size that will work? They cannot.

I will now go over the specification filed by Mr. Morse.

[Here Mr. Gillet read from the specification as follows:]

"The mode of applying the decomposition by electricity is by the use of *so much of my machinery previously patented*, called the register, in *my* ORIGINAL *patent* for the Electro Magnetic Telegraph, as is employed in regulating the paper; substituting for the paper the cloth, thread, metal, or other material prepared in solutions or classes of solutions, A, B, and C. Instead of a magnet, however, and lever and pen, I dispense altogether with both the receiving magnet and the register magnet *of my former patents*, and substitute therefor the following arrangement, as exhibited in the accompanying drawing and description.

"In the accompanying drawing R is so much of the register of my original patent as is used in drawing and regulating the motion of the paper, and is similarly used for drawing and regulating the chemically prepared material for marking by electricity. S S is the modern platform for mounting the machinery. A is a metallic cylinder, or drum, or piece of metal mounted upon a metal standard d, screwed into the platform. b is the cloth or prepared material to be marked. c is a thin-edged wheel, the periphery of which is platinum, held by a metal spring e, also mounted on a metal standard f, screwed into the platform. K is the metal key of *my* ORIGINAL *patent*. P is the battery. From the standard f, a conductor proceeds, connecting with the back of the key at g, which is screwed into the platform. h is the metallic anvil, also screwed into the platform, and insulated from the rest of the key. i is the hammer, attached to the upper part of the key. From the anvil proceeds a conductor to the other pole of the battery.

Operation. While the hammer, i, is separated from the anvil h, no current can proceed from the battery. But the moment i and h are in contact, the current of electricity takes the direction of the arrows, and passes through the chemically prepared material at a, decomposing the salt with which it is prepared, and making a mark. Thus the characters of *my* conventional alphabet, and other characters, are at pleasure made upon the prepared material."

Now, from that description, can your honor tell what the machinery is which is to move the paper? Can any machinist make that machinery from this description? Here are two wheels: what puts them in motion? What keeps them in motion? This description refers to something else which is not here, and which is not expressed either in this description or in the patent. But the statute says that it must be so expressed in the patent that, from that description the thing can be made

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by another. He speaks of "a platform," of a "metallic cylinder:" "b is a cloth," &c. Here is no description how this cloth is to be prepared, or how it is to be used. It speaks of a "thin-edged wheel;" and then of "the metal key of *my original patent*." Now Mr. Morse has had a large number of patents; all are "original," one as much as another; which of these does he refer to as "my original patent?" Does he mean the first patent ever granted to him? It is not cited here, nor described or identified; all he says of it is, "my original patent." He speaks of a "battery," but he does not tell how it is made: he speaks of the "poles of the battery;" which are the poles? Are they here? They are not.

Can any thing that is useful, and that *will work*, be made from such a description?

But, again, I ask, what is the "circuit," here referred to? "The nature of my invention consists: First, in the application of the decomposing effects of electricity, produced from any known generator of electricity, to the making of alphabetic or other signs for numerals, or letters, or words, or sentences, *through a* SINGLE CIRCUIT of electric conductors." The description, in speaking of the circuit used, does not say one word about the "earth," the word is not in the specification; neither word nor thing is to be found in his drawings. A single circuit is used, through a wire which is to go from this machine to a battery and back again, and that is the whole of it. Again, he says, this is to mark "the characters of *my* conventional alphabet." Of *his* alphabet, but not of all alphabets that may be constructed.

Now take the materials used by him for his chemically prepared paper, as enumerated in his caveat. What are his materials? He says, "I use the class A," and he says, "these are a class of salts that produce a colored mark under the action of electricity."

[Mr. Gillet here quoted Mr. Morse's enumeration of materials in his "class A," as follows:]

Class A. 1st. I use the iodide of tin, in solution. 2d. An extract from nutgalls and sulphate of iron. 3d. Acetate of lead and nitrate of potash in solution. 4th. Iodide of potassium in solution.

Here he mentions iodide of tin, &c.

Then we come to "class B," and this is a class of materials "which color the paper, and are bleached by the action of electricity." Here, again, is this "iodide of tin." So we have the extraordinary discovery that this iodide of tin works two different ways: in one class it "marks" the paper, in the other it "bleaches" it.

[Mr. Morse here remarked, in an under tone, "well, that is precisely the truth; it does so."]

Now, it is a well settled rule of law that when an invention consists of a composition of ingredients, the relative proportions of the different ingredients that enter into the compound must be stated, so that there shall be no need of experiments to determine those proportions: because, if they are not so stated, and experiments are necessary, he who by experiments discovers the relative proportions is himself the discoverer, entitled to the patent. Now, every one of these proposed chemicals of

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Mr. Morse is a compound; and there will have to be experiments made before any one can know how to make and use them; and if so, the man who makes the experiment successfully will be the discoverer, and will be the legal patentee, and not Mr. Morse.

"Iodide of tin in solution." How is the tin to be dissolved; what is the solvent; how strong is it to be when used?

[In the same manner he went over various other items, asking similar questions as to the proportions of the several ingredients, and the preparation of the chemicals.]

Thus your honor will see that it is impossible, from Morse's specification and model, to construct his machine and make it go. And if this is true, then his invention is not patentable.

The Commissioner very properly says, that no forced construction is to be put on the law of this country "in favor of aliens." This is true; and I will add, "nor against them;" and if no such "forced construction" had been put, Mr. Bain would have been declared entitled to his patent.

He says that the argument of the appellant is based on a false assumption of facts. This is a very easy and a very common way, when a man cannot meet an argument, or controvert a statement of facts, to sweep away the whole by an allegation. If the argument is irrelevant, and proceeds on a false assumption of facts, it would be a very easy thing to show it.

The Commissioner says that no testimony offered by Mr. Bain was refused by him on the hearing. Now, unless there is something technical in his use of this word "refused," or unless the Commissioner understands the word in some other than its ordinary meaning, or contrary to that meaning, I say that he is mistaken. I find in his decision these words, "said Bane and his counsel were informed that they could not go behind Mr. Bane's English patent of 1846." Now, I suppose that when Mr. Bain was told that he could not adduce any proof going behind the date of his English patent to show the priority of his invention over Morse's, that amounted to a refusal of such testimony. It certainly is so in substance and effect, though it may have been a denial made before the evidence was actually attempted to be produced; still it is not the less an actual refusal of such evidence, as entire and perfect a refusal of it as would have been made had it been first actually offered.

To get round an argument in Mr. Bain's reasons of appeal, the Commissioner assumes a fact which does not appear in the case. It was claimed by Mr. Bain that his patent of 1843 covered substantially the disputed matters in his patent of 1846; but he did not then claim as broadly as in the patent of 1843. To get rid of the force of Bain's argument, he says that Bain has since obtained a patent here for what was in his English patent of 1843; and that so he has got all he wants. But it does not appear that he has done this. He may, in point of fact, have since applied and got a patent, as alleged; but that fact is not in this case. This shows that the Commissioner thought Bain's patents of 1843 and 1846 were not alike, if he refused the one and has since

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granted the other; but it does not prove either that they are or are not alike. He has no right to go outside of the case, and bring into it a subsequent fact. If the Commissioner may do this, then we may do the same thing; both must be put on the same footing; the fact he has adduced is not in the case. The Commissioner also assumes that Mr. Morse has a patent for this, and a patent for that. This he is not entitled to do; there is no proof of the assumed fact. If this had been originally brought into the case before him, we could have assailed it, and shown it to be void. But this is a matter which neither he nor we have any right now to bring in to the case as before your honor.

The Commissioner assumes that Mr. Bain could not have got his English patent of 1846, if it had contained the same principles with his patent of 1843. What authority has he for this assumption? He has no law to show, no authority, no rule. Bain might in 1846 have got a patent in England for the same thing in substance as his patent of 1843, provided he had connected it with new matter; there was nobody to contest the point with him. The Commissioner is wholly mistaken when he would prove, from the fact of the grant of the patent of 1846, that it must have been for a different principle from his previous patent of 1843.

The Commissioner says that no testimony was adduced before him to prove the inutility of Morse's invention. But I have already shown your honor that Bain did offer to bring such testimony. He did declare that he "stood ready" to go into an effectual trial, by experiment, of the compounds set forth by Mr. Morse in his specification. True, he offered his testimony in a particular manner; but he did offer it. The Commissioner took no notice of that offer. Mr. Bain said that Morse's compounds were insufficient, and he offered to prove it. Not, indeed, as a lawyer would have offered testimony in a court of justice, but as a plain man who knew nothing of the forms of law. But he was not informed whether his offer would be accepted or no. No notice whatever was taken of it; and this, we say, was tantamount to a refusal of the testimony offered.

The Commissioner says he looks at the three points of novelty, originality, and priority; but practically, he skips over both originality and priority, and confines himself to a forced construction of the date of Mr. Bain's English patent.

He says, that if he himself entertains doubts in relation to the right of an applicant to a patent, he may require experiments to satisfy his judgment, but that no other but himself may require them. We say that in this he is mistaken.

I will now go over three of the sections of the Patent law of 1836. The 6th section authorize all persons who have discovered new and useful inventions to make application for patent, and tells them what they must do to obtain one.

The 7th section provides for an application when there is none to contest it. This section must be carefully dissected. What does it say? After declaring that the application, when filed, shall be examined by

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the Commissioner, or by his order, it goes on to say: "and if, on any such examination, it shall not appear to the Commissioner that the same had been invented or discovered by any other person in this country, prior to the alleged invention or discovery thereof by the applicant, or that it had been patented or described in any printed publication in this or any foreign country, or had been in public use or on sale, with the applicant's consent or allowance, prior to the application, if the Commissioner shall deem it to be sufficiently useful and important, it shall be his duty to issue a patent therefor. But whenever, on such examination, it shall appear to the Commissioner that the applicant was not the original and first discoverer thereof, or that any part of that which is claimed as new had before been invented, or discovered, or patented, or described in any printed publication in this or any foreign country as aforesaid, or that the description is defective and insufficient, he shall notify the applicant thereof," so that he may alter his specification and confine it to what is actually new.

Now, what does all this mean? It declares that the applicant must get his patent unless one of these several objections appears:

1st. That it has been patented.

2d. That it has been described in some printed publication.

3d. That it has been discovered in this country before the alleged *discovery* by the applicant; (not before his *application* for a patent.)

Well, now, drawing in the words "in this country" results in this: If a man from England asks for a patent for something not discovered before him by an American, though some other Englishman may have discovered it before him in England, he is to get his patent. It produces this singular result, the first foreigner that comes gets his patent, unless the thing has been discovered here before him.

The construction contended for on the other side is, that if it has been discovered by an American, the American must get his patent, unless the same thing has been patented before, or described in some printed publication.

But all the language of the section is connected; and taken together it obviously means, that in order to get a patent, the applicant here must have discovered the thing before any man abroad; if not, the Commissioner cannot give him a patent.

Take this in connexion with the 6th section. There the applicant is required to make oath "that he does verily believe that he is the *original and first inventor* and discoverer of the art, machine," &c., "and that he does not know or believe that the same was ever before known or used." That language applies to the present case, provided none of the objections specified appears in evidence. The residue of the 7th section confirms this view. The Commissioner is to examine the applicant's specification, drawings, and model. "But when, on such examination, it shall appear to the Commissioner, that the applicant *was not the original or first inventor* or discoverer thereof, *or* that any part of that which is claimed as new had before been invented, *or* discovered, *or* patented, *or* described in any printed publication, *in this*

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OR ANY FOREIGN COUNTRY, as aforesaid, *or* that the description is defective and insufficient, he shall notify," &c. The question is, whether the applicant was "the original and *first* inventor," not only "in this country," but "in any foreign country." That is the question which the Commissioner is to consider; and if he finds that the man applying is not the original and first inventor *any where*, in this country or any other country, he must refuse the patent. That is the express requirement of the law.

But the 6th section raises a difficulty which is conclusive upon Morse, and fatal to his application. Morse goes, and so does the Commissioner, on the presumption that the law says, that if the thing claimed had not been patented or described in some printed publication before Morse invented it, Morse must have a patent; but that is not the language of the law. The act says that he shall have his patent, if the thing claimed has not been patented or described in any printed publication prior to Morse's *application* for patent—not prior to his *invention*.

I quote from the 7th section. "And if on such examination *it shall not appear* to the Commissioner that the same had been invented or discovered by any other person in this country prior to the alleged invention and discovery thereof by the applicant, *or*, that it had been patented or described in any printed publication in this *or any foreign country, or* had been in public use or on sale with the applicant's consent or allowance, *prior to the* APPLICATION, if the Commissioner shall deem it to be sufficiently useful and important, it shall be his duty to issue a patent therefor."

If the same thing has *not* been patented or described in print before the application here, the Commissioner must issue the patent; but if it *has*, then the patent must be refused. Now, the facts in this case show that Bain's patent of December, 1846, had not only been sealed, but had been enrolled also, prior to Morse's *application* for a patent. And it is laid down by the Commissioner himself, that if an invention has been patented, or described in any printed publication, even in a foreign country, it is presumed by the law that the applicant had seen it before applying for a patent. Now, it is conceded that Bain's invention had been patented in England before Morse applied for his patent here.

Mr. Morse. That is not so.

Mr. Gillet. The gentleman has the . . . . . *courage* to say, that this is not so. I say, he is mistaken. His application is dated in January, 1848; Bain's English patent was enrolled in June, 1847. Is not June, 1847, prior to January, 1848? But, it may be, that he is dreaming about a caveat that he entered; yes, he did enter a caveat, but the statute no where allows a "caveat" to be an "application for a patent;" and it is the date of the "application" that is to be looked at. His application is dated in January, 1848; then he swears, for the first time, to his invention as his own; he never had made that oath before. A caveat is accompanied by no oath. If he thinks to slide along into a patent on his caveat, as if it were, in law, an "application," he is mistaken in his idea of this tribunal, and the manner in which judgment is here administered.

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But all this is provided, where there is no opposing claim before the Commissioner. The directions of the statute, as far as yet referred to, are where there is only one party applying.

But in the 8th section we find provision made for a case of alleged interference between the claims of two parties. What does it say? If the Commissioner thinks their claims conflict, he is to notify both parties; "and if either shall be dissatisfied with the decision of the Commissioner *on the question of priority of right or invention*, on a hearing thereof he may appeal from such decision." This language shows that the Commissioner is bound to pass on the priority of invention; and on that question he may refuse not only one, but both the applicants; for the section goes on to say, "on the like terms and conditions as are provided in the preceding section of this act, and the like proceedings shall be had to determine *which* or *whether* EITHER of the applicants is entitled to receive a patent as prayed for." But if the position taken on the other side be true, if one of the parties is an American and the other is not, the American must get his patent. But the Commissioner, according to the law, may refuse both—finding that the right belongs to some third party.

But, to show your honor that Bain is placed by the statute under no disadvantage as to obtaining his rights as the original inventor from his residence abroad, I go on to quote the sentence which immediately follows: "But nothing in this act contained shall be construed to *deprive an original and true inventor* of the right to a patent for his invention, by reason of his having previously taken out *letters patent therefor in a foreign country*, and the same having been published within six months next preceding the filing of his specification and drawings." If Mr. Bain had come before the Commissioner without any patent from abroad, he could not have been tied down to any particular period within which he must prove his discovery—his English patent being out of the way, he might go into the same range of proof as any other applicant. This would have been his right; and this act declares that there is *nothing* in it by which he shall be deprived of this right, "by reason of his having previously taken out letters patent therefor in a foreign country."

The Commissioner says there is great force in the opinion of the Attorney General, founded on the 15th section of this act. I will state what I apprehend that section to mean. It has nothing to do with the *issuing* of patents. It only relates to the judicial proceeding which is to be had after a patent has been issued. It provides that, after a man has obtained a patent, if the right it secures to him shall be infringed, he may sue the violator; and it provides that, in such case, various defences may be put in. One of those defences is this, (directly in contradiction of the decision of the Commissioner:) "or that the patentee was not the original and first inventor or discoverer of the thing patented, or of a substantial and material part thereof claimed as new." The alleged violator of a patent, if sued, may put in this defence. If a patent is issued to Morse, and he shall sue Bain for interfering with

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his right. Bain may plead as a defence that Morse "was not the original and first inventor;" and if he establishes the truth of such plea, this section declares that "judgment shall be rendered for the defendant, with costs."

But here, in the next clause of this same section, is that which misled the Commissioner. "Provided, however, That whenever it shall satisfactorily appear that the patentee, at the time of making his application for the patent, *believed* himself to be the first inventor or discoverer of the thing patented, the same shall not be void on account of the invention or discovery, or any part thereof, having been before known or used in any foreign country, it not appearing that the same, or any substantial part thereof, had before been patented or described in any printed publication." But this proviso has nothing to do with the trial for infringement; it is one of the consequences only. If the thing invented had been patented, or had been described in print before his application, his patent must be declared void; but if not, and if he honestly believed himself to be the first inventor, his patent shall not be voided. Very well. But this does not touch the *suit* for violation; and in such suit the defendant, as I have shown, is allowed to prove, if he can, that the patentee, whatever he may have believed himself to be, is not the original and first inventor. Hence I hold that no such conclusion follows from this 15th section as the Commissioner seems to suppose. He assumes that, successfully to resist a suit for infringement, and to get the patent declared void, is one and the same thing. To defeat the patentee on a trial is one thing; to make his patent void is another.

The Commissioner, however, says, and says truly, that he cannot be required to grant a patent, which, if granted, would be pronounced void by the courts. That is perfectly correct, and in that position we most heartily agree with him. But he seems to think, that an alleged violator of a patent right cannot put in the plea that he is himself the original and first inventor of the thing patented. We say that he can. We hold that when the question of "priority of invention" is up for decision, the law knows no distinction between an American and a foreigner. Suppose Bain comes to the Commissioner and asks for a patent; Morse comes and claims a patent for the same thing. Bain says that he was the first inventor of it; Morse denies this. Here is an issue, and the case is provided for in the 8th section of the act. Bain produces a British patent dated in 1846; it is *prima facie* evidence that he was the first inventor, because Morse's application was not made till 1848. Morse then calls up his son as a witness. His son swears that in September, 1846, he saw his father engaged upon something that was not yet complete, but was to be perfected by and by; he does not identify that with this machine. But, admit that what he saw was identical with the machine for which Morse now asks a patent, Bain says I invented the same thing, and got a patent for it three years before my patent of 1846. What does Morse reply; that he invented it before 1843? Not at all. But he says "you are a foreigner,

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I object to your going back of your patent of 1846," and his objection is sustained by the Commissioner. I ask, is that a fair trial? Is it such a trial as is pointed out in the 8th section of this act of 1836? Not at all. There all parties are placed upon the same footing. "Nothing shall deprive an original and first inventor of the right to a patent for his invention, by reason of his having previously taken out letters patent therefor in a foreign country." But the Commissioner's construction of the law, not satisfied with requiring the foreigner to pay $500 for what an American can get for $30, shuts him out from the production of evidence to show that he is the "original and first inventor" of the thing for which he claims a patent. The Commissioner yields to a construction like this, and tells Bain that he cannot go behind his patent of 1846 to prove that he invented the thing before Morse, which we say is equivalent to shutting out any testimony he might offer to that point. We need not prove here, in detail, the testimony that he could have offered, nor that he did actually offer any, because the general exclusion covers all minor exclusions.

Then, I ask, has Bain had a fair trial? I answer, no; he has not had a fair trial. Not only have the general rules of law been violated, but the rules of this statute also. If the Commissioner had no right to rule out our evidence if presented, then, according to his own decision, viz., that Bain was entitled to a patent, he could not rightfully refuse it. It is absurd to say that he could not grant a patent under the 15th section, because the same phraseology is used there that is used in the previous sections as to priority of invention; and on a trial at law Bain could have defeated Morse on that ground. Suppose he should give Bain a patent; Morse uses the thing patented; Bain sues him; what will be the quesion? It will be the question of priority of invention. Bain's defence will be, according to the 15th section, "that the patentee was not the original and first inventor or discoverer of the thing patented, or of a substantial and material part thereof claimed as new;" and unless Morse can show that he is the "original and first inventor," will not Bain recover? Most surely he will. Admitting the two claims to be for the same thing, the statute allows Bain to show, if he can, that he was the first inventor of it.

I now proceed to show, from the highest authorities, that Morse is not entitled to a patent unless he is the first inventor, not only "in this country," but as to all the world.

Chief Justice. Is that one of the points stated in the reasons of appeal?

Mr. Gillet. Yes, distinctly.

Mr. Gillet here quoted 1 Mason, 301; on which, as read, the reporter made the following note:*

The first inventor only is entitled to patent.

Also, 2 Washington, 342. Under the general law of patents the right belongs to the first inventor, even before any patent is granted.

*Not having the books before him, the reporter of course does not give the above as quotations from them, but only as containing the substance, as he gathered it by the ear.

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Ibid., p. 311. The plaintiff must satisfy the jury that he is the original inventor as to every part of the world.

1 Washington, 168. Whether the plaintiff is the first inventor is the question for the jury.

1 Peters' circuit ct. reports, 342. The discovery must be new—not known or used in any part of the world.

1 Story Rep., 590. Under the Patent laws the applicant must be the first as well as the original inventor, and a subsequent inventor cannot get a patent if the invention has been perfected by the first.

2 Story, 164. The same.

Chief Justice. It is not worth while to multiply authorities on that point.

Mr. Kendall. All these, so far as I have heard, are decisions prior to the act of 1836, which in some respects changed the previous law.

Mr. Gillet. It did not change the law in this respect.

2 Kent's Com., (edit. 1848,) 368. If the applicant is not the first and original inventor as to all the world, he cannot get a patent; for though he may not have had any knowledge of the like from any printed description, the law presumes he may.

I have, also, some twenty of such decisions in a book entitled a list of patents, put forth by the Commissioner of Patents in 1847. I have not the particular references with me, but the same doctrine is there reiterated about twenty times.

The Commissioner distinctly assumes the principle that a patent cannot be granted for producing an old effect by a new mode.

Chief Justice. Has he decided that?

Mr. Gillet. Yes, distinctly. For my position, I refer your honor to Nos. 7, 8, 9, 10, in the Commissioner's own book, p. 39.

Also, to 1 Mason, 447. A patent may be granted for a new combination, whether the machines be old or new. A patentee must describe, with reasonable certainty, in what his invention consists, or his patent is void.

1 Mason, 182. Patentee must describe his invention with reasonable certainty, or his patent is void for ambiguity.

5 Howard, p. 1. Where there is a compound, the proportions of the materials must be given, so that no experiments are needed to ascertain them.

1 Woodbury, 290.

1 Peters' circuit ct., 322.

3 McLean, 250.

I now contend that I have produced sufficient authority to show that the Commissioner has mistaken the law in deciding that an invention to be patentable need not be new as to all the world; in deciding that he is himself the exclusive judge whether it is patentable or not; (and if a thing is not practicable, of course there can be no interference with another that is;) and that a patent cannot issue for producing an old result by new means.

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It is on these three points, in which I affirm the Commissioner to have mis-stated the law, that these authorities have been cited.

I now call your honor's attention to the testimony produced before the Commissioner on the hearing of this case in behalf of Morse's claim.

The Commissioner bases his whole decision, as to priority of invention, on the testimony of the son of the claimant. He goes on the supposition that young Morse proved that his father, in September, 1846, had invented such a machine as he now claims, and had such a machine then in his chamber.

We deny that his testimony proves, or even tends to prove, any such thing; and there is no other testimony on which any reliance is pretended.

[Here Mr. Gillet read the testimony of Charles Morse, as follows :]

Charles W. Morse. Knows of nothing definite about the matter, till September, 1846, about the dots, lines, and decomposing the paper. Next and after Niblo's garden burned down, I went to my father's rooms. It burned down on Friday; I went there on Monday following. Burned on 18th September, 1846. There saw an instrument which was *somewhat dissimilar* to any I have ever seen, in the arrangement of its marking the characters. These characters were formed by the *pen* running over the whole surface. The paper passed *under the pen*. The *pen* was constantly in contact with the paper. Every time the *key* was touched, there was a mark made on *the paper or rag*. I saw that the *key was connected with the pen by wires, which passed under the table. The wires ran to the battery in the other room.* Operated with the instrument myself; at this time, I noticed the paper *was damp*, and saw my father *dip it* in some solution that he had there; he had a paper and rags. The marks were made on strips of paper and strips of rags. The connection between the time of my seeing this and the burning of Niblo's garden was this : there was a young lady whom I was desirous of taking to Niblo's garden, and I remember I took her to my father's room. After she left, my father told me *not to say any thing about the experiments he had been making*. I desired to take the young lady to Niblo's. I was disappointed by the burning of the garden. A friend of mine was in the city about that time, from Natchez, Mississippi. When I left the office, *I mentioned to him my father had something under way, but not perfected then, that was more simple than what he had been shown.*

Your honor will recollect, that in the model of Morse's machine, submitted to your examination, there was no "pen." There was a ruler; and in his description he calls it a "ruler;" but there was no "pen." Now this witness, after telling the Commissioner that in September, 1846, he saw in his father's room "an instrument somewhat dissimilar from what he had before seen," and that it was for marking characters with a "pen"—he speaks, afterwards, of "the pen." He says nothing about a "ruler"—nothing about "a ruler with a platinum disc." He says there was a "key" connected with "the pen."

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Now I call upon your honor, as a judge, to say, if that which this witness thus describes was this machine now before you? Can you say that it was any such thing at all? The account he gives of it is, that it was "somewhat different from any thing he had before seen;" how different; and what had he before seen? Who can tell? He saw some damp paper; does he say it was chemically prepared paper? Does he mention the chemical ingredients used in preparing it? Not at all. Are you authorized on this testimony to say, that it was paper chemically prepared? There is not one word of proof of any such thing. He swears, four times, that the thing used to mark with was a "pen." There is no pen here. As far as he describes the machine at all, it appears to have been something very different from this machine. Can you, can any man say, this thing before you was such a "pen" as this witness saw? You can neither assert, nor can you infer, that it was the same. If it was, it is for them to prove it. He says he touched a "key" connected with "the pen." Is there any such thing there? Can your honor now see any "key," or any "pen?" Wherein are the two things alike? He says his father was then engaged in experimenting on his invention, but that it was not perfected. Had it been any thing like Bain's, how easy would it have been to have examined the witness and let him swear to their identity, if they were alike. But the proof, as far as it goes to any thing, all goes to show it was a different thing. There, clearly, is not a hundredth part of the similarity that there is between it and Bain's patents of '43. Here is Bain's specification and the drawing that accompanied it; and here you will find the pen—the long circuit, with the earth forming a part of it—and here you will see the chemically prepared paper; are not these three of the leading things claimed by Morse? Are they not, in fact, the substance of the whole? If Bain's patent of 1843, contained these three things, are they not the same things in substance as are in his patent of 1846, and as are claimed by "Morse? They must be. The Commissioner says he cannot grant a patent for the long circuit, the key, or the chemically prepared paper, because all these are old. These things were in Bain's patent of 1843, and are the same as Morse's claim here; and if Morse had a pen, and not a ruler, there would be four things the same. Morse's claim is for a combination of old things that have been used before; now, it is either the same combination of them with Bain's, or it is a different combination; if it is a different combination, then there is no interference; if it is the same combination, then Bain has a right to show that his combination is the elder of the two, and that therefore he is entitled to his patent.

But let me repeat, that the chemically prepared paper, the long circuit, and the key, are common to all the patents. Morse has a pen; Bain has a stylus. Admitting they are all the same, with this exception of the stylus, are they alike? Even if the stylus is not new, (Bain claims that it is new,) still it is a different combination from Morse's, and therefore Morse cannot get a patent as against Bain. Morse does not show any invention of the chemically prepared paper, nor of the cir-

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cuit, nor of the stylus. Is his claim the same with Morse's? It is not. Bain claims the perforated paper, prepared beforehand, and then introduced into his machine. Does Morse claim this? It is not pretended. Bain claims it; it is a part of his third claim—the claim which is refused a patent. In his third claim, he says (speaking of the stylus) "through a suitable metal marking style, that is in continuous contact with the receiving paper, thereby making marks thereon; which marks correspond with the *groups of* PERFORATIONS *in the paper* composing the transmitted communication." Has Morse any such perforations? No. Yet the Commissioner refused this, his third claim, for interference.

Mr. Kendall. These are not in his third claim.

Mr. Gillet. Yes, they are in his third claim, which was refused.

The opposite counsel told you they did not claim the key. If not, then we can put it into our combination; and, if so, what is there in Bain's third claim but the perforated paper? Can this court pronounce Bain's third claim and Morse's claim the same? What does Morse say? He claims the use of the single circuit for describing the alphabetical signs "already patented," but does not tell what those signs are, or when they were patented. His words are: "What I claim as of my own invention and improvement, and desire to secure by letters patent, is, the use of a single circuit of conductors for the marking of *my telegraphic signs already patented.*"

The Commissioner denies him the single circuit; he says that cannot be patented, because it is a principle, and its use is as free as air. Well, he can't get a patent for chemically prepared paper; the Commissioner says that is old. What then is to be patented? Morse does not describe any particular description of chemical paper; and therefore he cannot exclude others. But Bain has, in his claim, a paper prepared in a peculiar manner, viz., with prussiate of potass. The use of all sorts of chemically prepared paper Morse cannot have.

What is the long circuit, claimed by Morse to be used for? To describe "*his* alphabet" and numerals, "already patented;" but he does not include any alphabet or any numerals in his specification. What alphabet is it? What numerals are they? He does not tell. He says they are some that are "already patented." But are we bound to go to the Patent office, and pay some hundred dollars in fees to find out what they are? Is an inventor in Texas bound to come all the way to Washington, and mouse over the records of the Patent office, to discover a certain alphabet and certain numerals which have been "already patented?" No. Mr. Morse cannot make something else, not described in his patent nor designated in any way, a part of his patent. If he wants to add his alphabet and his numerals, as a part of what it secures, he must describe them—must tell what they are. If he does not, how can any man make his machine, so as to perform what he claims? Here is a palpable effort to engross and monopolize the whole marking material in the world. Science must stand still; the powers of invention and of improvement must be paralyzed, for fourteen years, that Mr. Morse's patent may not be infringed. I say here is the effort; but it can't succeed. He can secure no more than he describes.

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Again: Mr. Morse claims to be the inventor of all the machinery he describes. Hear him.

"I also claim the *invention of the machinery*, as herein described, for the purpose of applying the decomposing coloring or bleaching effects of electricity, acting upon any known salts, as herein described."

But your honor has heard his counsel admit that the key is old. Yet he claims to have invented it; and the key is a very important part of his machine. Is he the inventor of the metallic drum? No; that was employed years ago by Davy. Is he the inventor of the stylus? No. Is he the inventor of Bain's roller and spring? No; they, too, are Davy's. He may, for what I know, be the inventor of some part of the clock-work that moves his paper; but if he claims as new that which is not new, and claims to have invented what he did not invent, the law declares that his patent must be refused; and, if granted, will be void.

Will Mr. Morse turn round and say, that the key, and the drum, and the roller, and the spring, are no part of the "machinery" which he claims? If so, then these may be stricken out; and if you take away these, will his machine go? Obviously not. He is not the inventor of these things, and he cannot get a patent for them. He has claimed too much, and therefore cannot get his patent; and so your honor will be bound to decide.

They will still, however, claim that they are the original inventors: but they have produced no testimony to prove this. The testimony of young Morse is wholly inconclusive. What evidence has your honor that Morse invented his machine prior to 1846? Bain's patent of December, 1846, is older than even Morse's caveat; and his caveat is not the same with his exemplification

But suppose your mind is in doubt; if you are not satisfied, then you are bound to send the case back to the Commissioner, where all the testimony in the case can be gone into. If Bain and Morse have, as I claim that they have, an equal right to go back, and show which was the "first and original inventor," then further testimony must be taken to settle that point of fact. Let your honor do this—remand the case to the Commissioner, and then Bain will not be shut out from establishing his just rights because he is an alien.

If Bain's English patent of December, 1846, is admitted to be prior to Morse's "application," then it follows that Bain is entitled to a patent, and Morse is not. If your honor agrees with us in this, our position, then Bain gets his patent; but if you are in doubt, then you are bound to send the case back to the Commissioner; and here I rest, till I hear what the other side has to say.

WEDNESDAY, *February 7th.*

Mr. ALEXANDER LAWRENCE appeared as counsel for Mr. Morse, and said—

Before proceeding to read to your honor the reasons set forth by the Commissioner for his decision, I wish to be indulged in a single remark,

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as to the cause of my own appearance as counsel for Mr. Morse on this occasion. I was formerly employed by Mr. Cox to represent, in his absence, Mr. Bain; but, having been very unceremoniously treated in the matter, I feel no sort of delicacy in now appearing on the other side. Mr. L. was proceeding, * * *

Chief Justice. It is not proper for counsel here to go into any matters of a merely private and personal nature. You will please to proceed to the reading of the reasons of the Commissioner.

Mr. Lawrence thereupon read the following paper:

COPY.

Decision of the Commissioner of Patents in the matter of interference between S. F. B. Morse and Alexander Bain, applicants for patents for certain improvements in Electric Telegraphs.

The ground of interference in this case is in the claim set up by the respective parties, to a mode of telegraphing in which the galvanic current is made to produce marks upon paper, "chemically prepared," without the intervention of magnets or other machinery to be moved. As the full development of magnetism requires a much longer time than the simple passage of the galvanic current, and as magnetism is always retained in the electro-magnets for a certain length of time after the cessation of the galvanic current, it is evident that the use of magnetism to effect the motions necessary for recording signs, as hitherto practised, must render the operation of telegraphing much slower than it would be, if some mode could be devised by which the magnet might be dispensed with. Moreover, the employment of some machinery is involved where magnetism is used; and, in consequence, inertia is to be overcome, and intricacy and liability to derangement introduced. It has also been found in telegraphing through great distances, that a "secondary magnet," as it is sometimes termed, and a "local battery" and "registering magnet," were required, in order to obtain a sufficient amount of mechanical power to effect the imprinting of signs upon paper.

Hence, it appears, that incident to the employment of electro-magnetism is an additional source of retardation in the secondary magnet, making two magnetic operations in sequence necessary to the result, and therefore any device by which magnetism may be dispensed with becomes doubly important from this last consideration. These preliminary observations are deemed important, as bearing upon the question of patentability in the claims set up by the parties as before mentioned.

It appears from the records of the office that the application by said Alexander Bain, subject of Great Britain, was made April 18, 1848, and upon investigation of his claims it was found that the before mentioned claim could be admitted to patent, no invention of a like character appearing in the public records of the office, nor in any printed publication. Prior however to the final issue of the case, the secret archives were consulted, and it was found that an application filed by Samuel F. B. Morse, January 20, 1848, had been there deposited in

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accordance with provisions of the law, which presented claims conflicting with those before mentioned set up by said Bain. It further appeared that a caveat for this same invention was entered by said Morse, January 27, 1847, and accordingly an interference was declared, and the parties duly notified to produce testimony of the dates respectively of their inventions.

When application is made for letters patent for which a foreign patent has been granted, it is the practice of this office to require the date of the enrolment of the specification as proof that the foreign patent had been completed. Said Bain furnished in his application the date of the sealing of his patent only, viz., 12th December, 1846. It has appeared, however, that the specification was duly enrolled 12th June, 1847. The enrolment, according to the English law and authorities, must be made,* "because the public is entitled to know what the patent has been granted for, what they are prohibited from doing during the existence of the patent privilege, and what they are to become entitled to when it expires." The invention being a sealed matter in England until this time, it will appear that the date of the enrolment is important as affecting the question of priority, and the rights of an original inventor in this country. Said Bain and counsel being informed that said Bain could not go behind his foreign patent for proof of priority in this case, raised a question upon this point of law, and requested that it be referred to the Attorney General for his opinion.

The period of interference was much protracted, in order to obtain the opinion of the Attorney General, and to give the parties full time; the interference having been first declared on the 22d April, 1848, and the final hearing appointed for the last Monday in August, 1848. Up to this appointed time of hearing, the opinion of the Attorney General, which had been deemed of so much consequence, had not been given, owing to a vacancy in that office. Said Bain and counsel, however, informed the office that they would waive that point, as they had made such discoveries as would make this opinion of no consequence to their case. The hearing was accordingly had; and, upon examination of the testimony adduced, it appeared that said Morse had contemplated this mode of telegraphing before stated for many years prior to its actual demonstration, which according to the clear and unequivocal testimony of Charles W. Morse, son of said Samuel F. B. Morse, took place in the month of September, 1846. The testimony of said Charles W. Morse establishes satisfactorily the time when said Samuel F. B. Morse exhibited to him this invention for telegraphing, and also the precise nature of the invention, and its successful operation. This witness fixes the time of this exhibition in the latter part of September, 1846.

It further appeared that said Samuel F. B. Morse filed a caveat in the Patent office, January 27, 1847, for the identical invention described by said Charles W. Morse, and completed an application for letters patent for the same invention, January 20, 1848. The model not hav-

* Hindmarsh on Patents.

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ing been received at the office at this last date, said Morse requested this application to be placed in the secret archives, which was done in conformity to law.

On the 18th April, 1848, said Bain filed his application for letters patent for a mode of telegraphing, which, upon its final examination, was declared to interfere, as before stated, with the application of said S. F. B. Morse. The petition of said Bain sets forth, that he obtained letters patent in England for this invention on or about the 12th December, 1846. The date of the enrolment, as before said, being 12th June, 1847, as appears from a certified copy of the same, as furnished by said Bain.

The oath of said Bain accompanying this application is as follows, to wit:

UNITED STATES OF AMERICA,
City and county of New York,
In the southern district of New York, ss.

On this day, the seventeenth of April, in the year one thousand eight hundred and forty-eight, before me, George W. Morton, deputy elect of the district court of the United States, for the southern district of New York, and United States commissioner, personally appeared the within named Alexander Bain, of the city of London, and Kingdom of England, whose name was by him subscribed hereto in my presence; and having been duly identified to me by William Terrell, of this city, who is well known to me, the said Alexander Bain thereupon made solemn oath, in due form of law, that he verily believes himself to be the original and first inventor of certain new and useful improvements in the mechanical means of composing messages or communications, and transmitting the same by the agency of telegraphic machinery to one or more distant stations, where the electric current marks the message or communication, as the said improvements are set forth and shown in the annexed descriptive specification, referring to drawings accompanying the same. That he does not know or believe that the said improvements were in any manner ever so known or used, as he has made and used the same, prior to his late and original and first invention and completion thereof. That he is a subject of the Queen of Great Britain and Ireland, by whom a patent was granted to him for the said invention and improvements in London, on or about the twelfth day of December, one thousand eight hundred and forty-six. That he is desirous of obtaining letters patent of the United States, for the purposes of lawfully securing the said invention and improvements to himself and his legal representatives, and of introducing the same into public use and benefit in the United States.

(Signed) ALEXANDER BAIN.

Subscribed and sworn at the City Hall, of the said city, this seventeenth day of April, in the year one thousand eight hundred and forty-eight, before me,

(Signed) GEORGE W. MORTON.
Dep. Clerk and U. S. Commissioner.

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Said Bain here clearly identifies the invention now in controversy with that for which his patent was granted in England, 12th December, 1846.

During the pendency of this case, the opinion of the Attorney General has been received, a copy of which is hereto annexed. This opinion, it will be seen, confirms the position taken by the office in the first instance, viz., that the said Bain could not go behind his foreign patent, or some printed publication, for proof of the date of his invention. Said Bain, however, has adduced on his part as evidence an English patent, granted 27th November, 1843, for certain improvements in electric clocks, in electric printing and signal telegraphs, to show that he made this invention now claimed, and secured in his English patent of 1847, at that time, viz., November, 1843. So far as the *conflicting claims* of the parties are concerned, it appears that the citation of the patent of 1843 has no bearing whatever. Said Bain, however, in a written statement accompanying his papers, maintains that, as it is clearly set forth in said English patent of 1843, that he used a *single circuit* of *conductors* to produce marks upon chemically prepared paper, he must be considered the first inventor in this case. Such use of a single circuit of conductors is not the point at issue, nor is this claimed by either party. Said Morse claims using a single circuit of conductors for a certain purpose, or in a certain way, viz., to mark his telegraphic signs, and also claims the machinery by which he accomplishes this purpose. Said Bain does not specifically mention in his claim using a single circuit, though this must be considered as an essential part of his invention and claim, and is necessarily involved in the final clause of his claim, to wit, " so that in either case these form the *received communication* substantially in the manner and with the effects described and shown." The claims of said Morse in full are as follows, to wit: " What I claim as of my own invention and improvement, and desire to secure by letters patent, is—

" The use of a ***single circuit*** of conductors for the marking of my telegraphic signs, already patented, for numerals, letters, words, or sentences, by means of the decomposing, coloring, or bleaching effects of electricity acting upon any known salts that leave a mark, as the result of the said decomposition, upon paper, cloth, metals, or other convenient and known markable material.

" I also claim the invention of the machinery, as herein described, for the purpose of applying the decomposing, coloring, or bleaching effects of electricity, acting upon any known salts, as herein before described."

The third clause in the claim of said Bain, with which the two claims of said Morse interfere, is as follows, to wit:

" Third. The application of any suitable chemically prepared paper, without regard to the chemical ingredients used for such a purpose, to receive and record signs, forming communications, such signs being made by the pulsations of an electric current or currents transmitted from a distant station, said current operating directly and without the intervention of any secondary current or mechanical contrivance,

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through a suitable metal marking style, that is in continuous contact with the receiving paper, thereby making marks thereon, which marks correspond with the groups of perforations in the paper composing the transmitted communication, or may be given by the pulsations from the spring 45 and block 46; so that, in either case, these form the received communication, substantially in the manner and with the effects described and shown, including any merely practical variations analogous and equivalent, in the means employed, and the effects produced thereby."

The invention, it will be seen by reference to the specifications of the parties respectively, does not consist in the use of the electric current to make marks upon a chemically prepared paper, nor making marks through a single line of conductors; nor could a claim to either of these devices have been entertained as patentable, as they have long been known. It was shown by Faraday, in 1833, (see Faraday's researches,) that a current from even a single pair of plates was sufficient to make such marks; and to accomplish them, he used a single wire touching the paper, making marks wherever the contact was made. This was a well known mode at that time of exhibiting the chemical effects of the galvanic current. In 1839, Mr. Davy took out an English patent for telegraphing, in which he employed this operation of the electric current to mark paper by chemical action; and subsequently, in 1843, said Bain took out a patent, in which he employed the same species of action for copying surfaces, such as type, &c. To effect this purpose, a complication of machinery was used and required; and although the single circuit was used, no special mention is made of it, and the claim is laid to the arrangement by which the copying of surfaces is to be effected.

It is evident that the present invention claimed cannot be deduced from this patent, and it must be presumed, upon facts so far as presented, that it was not known to said Bain at that time. The copying of surfaces was a slow operation, dependant upon the motion of a pendulum and magnets, and the marks made upon the paper were distributed upon it in such manner as to delineate the surface to be copied. The important element in all telegraphic despatches, viz., rapidity, was not introduced here, nor was it sought after. Said Morse stated in his specification, that by the use of the single circuit, in the manner set forth, he dispensed with the receiving magnet and secondary circuit, and said Bain specifies the same advantage. The improvement which distinguishes from all others the invention as claimed by both parties, consists in its rapidity of transmission of telegraphic communications, being, as asserted, much beyond that attainable by any of the forms of telegraph at present in use. This is owing to dispensing with the secondary circuit in part, and in part owing to the kind of telegraphic language or signs to be made upon the chemical paper. In said Bain's patent of 1843, the matter to be communicated or copied from a distance was a surface, such as a type, an engraving, or such like. Suppose, for instance, that said Bain had wished, under that arrangement

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which he claims, to have communicated a single line of intelligence, set up in type. Would it be held that such an operation was the result of an invention for rapid transmission, which is the distinguishing character of the present invention as claimed by both parties? Could such an operation be considered, even by the inventor himself, as an improvement in telegraphing? It is to be presumed not. For the copying of an irregular surface it was doubtless a novelty, but could not have availed for ordinary telegraphic communication. Under the same patent, viz., of 1843, the said Bain has also claimed an improvement in telegraphs for communication, which has no connexion with the mode of copying surfaces, or with the present invention claimed.

It being clearly established that the inventions now claimed by the respective parties are identical, and it being the opinion of the undersigned that the patent granted to Mr. Bain in England, in 1843, does not claim or set forth the invention now in controversy, it remains to determine who is the first inventor in contemplation of the law of patents in this country.

As the patent granted to Mr. Bain, in 1843, before referred to, does not, in the opinion of the undersigned, embrace the invention now in question; and as Mr. Bain has adduced no other testimony on his part to prove priority, except his patent of 1846, it appears to the undersigned that if the testimony of Chas. W. Morse is to be believed, (and nothing has appeared to impeach it,) the said S. F. B. Morse is the first and original inventor. But even if there was no proof of the invention by Morse, prior to the filing of his caveat, on the 27th of January, 1847, he must, according to a sound interpretation of the American law of patents, be regarded as the first inventor in this country.

During the progress of the case as before stated, the question has been raised and referred to the Attorney General for his decision, whether, in a question of interference between a foreign and an American inventor, the foreign inventor can go behind the date of his foreign patent to prove priority? After mature deliberation on the part of the Attorney General, that question has been decided in the negative.

But the question now arises, whether the date of the *sealing* of the foreign patent, or the date of the *enrolment of the specification*, shall be regarded as the true date of the foreign patent in controversies involving the rights of American inventors?

In prescribing the duties of the Commissioner of Patents, with regard to the examination of inventions and the issue of patents therefor, the act of July 4, 1836, sec. 7, requires, that a patent shall issue to the applicant, unless it shall appear that the invention has been "*patented* or described in any printed publication in this or any foreign country."

The term "patented," in our law, evidently imports that the patent has been *completed*, not only by sealing the patent, but by enrolling the specification, and complying with other requisitions. In short, it implies that the patent, whether in this or a foreign country, must be *complete and perfect*.

In this country, no patent can issue without the specification annexed

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to it, which must be enrolled in the Patent office prior to the issue of the patent. Our law regards no patent as complete or valid without the addition of the specification, and no patent can bear a date prior to the time of filing the specification and drawings. Under the English Patent law, the practice in the issue of patents is different. There the inventor may file in the Patent office the *title* of his invention, without a full description or drawing, and have his patent sealed. After which, he is allowed six months to enrol his specification and perfect his patent. If he does not, within six months from the time of sealing his patent, enrol his specification, the act of sealing becomes a nullity, and he has no valid patent. The *sealing* of the patent in England is equivalent to caveating an invention in this country, and operates to protect the inventor for the period of six months. But until the enrolment of the specification, there is no description from which the public can ascertain the character of the invention. How, then, can the American Commissioner of Patents, in the discharge of his duties, know that an invention has been "patented" in England, before the full *description* or specification has been enrolled, although the patent may have been sealed? It is impossible. For the invention before the enrolment of the specification, may exist only in the mind of the inventor, and of those to whom he may have confidently communicated it. Thus, it appears, that the American Commissioner can not know what has been "patented" by the English patent, until the specification has been enrolled.

Therefore, the undersigned is of the opinion, that in all cases in which the rights of third persons are involved, the true date of the English patent must be considered to be the date of its completion by the enrolment of the specification. If this conclusion be correct, priority of invention must be acceded in favor of Mr. Morse, setting aside entirely the testimony of Chas. W. Morse. Mr. Bain's specification was enrolled on the 12th of June, 1847, which, according to the interpretation above given, is regarded by the undersigned as the true date of his patent. Whereas, Mr. Morse deposited his caveat in the Patent office on the 20th of January, 1847, nearly five months prior to the true date of Mr. Bain's patent. Thus showing that his invention was, in contemplation of the American law of patents, prior to the completion of Mr. Bain's English patent. It is, therefore, hereby decided, that said S. F. B. Morse is the first and original inventor of the aforesaid alleged improvement in Telegraphs, and, as such, is entitled to receive a patent therefor.

EDMUND BURKE,
Comr. of Patents.

PATENT OFFICE, *Oct.* 24, 1848.
Examined. W. W. S.

Mr. Lawrence next proceeded to read the opinion of the Attorney General of the United States, referred to by the Commissioner in his reasons.

ATTORNEY GENERAL'S OFFICE,
August 30, 1848.

Hon. JAMES BUCHANAN, *Secretary of State.*

SIR: I have the honor to reply to your letter, submitting an inquiry

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propounded by the Commissioner of Patents, whether a foreign patentee can go behind the date of his foreign patent, and prove the actual date of his invention, in order to defeat the rights of an American inventor, there having been no previous description of the invention in any printed publication; or, in other words, whether the fact of an invention or discovery abroad, which had not been patented nor described in any printed publication, will defeat a patent to an original inventor, who has invented or discovered the same thing in this country.

The answer to be given to this inquiry depends upon the act of Congress, 4th of July, 1836, when the Patent laws of the United States underwent a revision, and several important provisions were for the first time introduced.

By the sixth section it is enacted, "that any person or persons, having discovered or invented any new or useful art, machine, manufacture, or composition of matter, or any new and useful improvement in any art, machine, manufacture, or composition of matter, not known or used by others before his or their discovery or invention thereof, and not at the time of his application for a patent in public use or on sale, with his consent or allowance, as the inventor or discoverer, and shall desire to obtain an exclusive property therein, may make application in writing to the Commissioner of Patents, expressing such desire, and the Commissioner on due proceedings had, may grant a patent therefor." The same section provides that "the applicant shall make oath or affirmation that he is the original or first inventor or discoverer of the art, machine, composition, or improvement, for which he solicits a patent, and that he does not know or believe that the same was ever before known or used, and also of what country he is a citizen."

Thus far the law is left substantially as it stood before; and if not accompanied by any new provisions, would be controlled by previous adjudications founded in a considerable degree upon enactments now become obsolete. But the seventh section introduces a new rule, which seems to be decisive of the question under consideration. It declares "that on the filing of any such application, description, and specification, and the payment of the duty hereinafter provided, the Commissioner shall make, or cause to be made, an examination of the new invention or discovery; and if, on any such application, it shall not appear to the Commissioner that the same hath been invented or discovered by any other person in this country prior to the alleged invention or discovery thereof by the applicant, or that it had been patented or described in any printed publication in this or any foreign country, or had been in public use, or on sale, with the applicant's consent or allowance, prior to the application; if the Commissioner shall deem it to be sufficiently useful and important, it shall be his duty to issue a patent therefor." The rule here prescribed to the Commissioner is afterwards reaffirmed and carried out in the form of a proviso, in the fifteenth section, providing a rule of adjudication, namely, "That whenever it shall satisfactorily appear that the patentee, at the time of making his application, believed himself to be the first inventor or dis-

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coverer of the thing patented, the same shall not be held to be void, on account of the invention or discovery, or any part thereof, having been before known or used in any foreign country, it not appearing that the same, or any substantial part thereof, had been before patented or described in any printed publication."

While, therefore, the sixth section declares that a patent shall issue to the inventor, (all other conditions being complied with,) if the thing proposed to be secured had not "been invented or discovered by any other person in this country," the proviso of the fifteenth section enacts that the patent shall not be held void, (all other conditions being complied with,) on account of the invention or discovery, or any part thereof, having been before known or used in any foreign country."

These provisions introduce an important modification of the law of patents, designed to protect the American inventor against the injustice of being thrown out of the fruits of his ingenuity, by the existence of a secret invention or discovery abroad; that is to say, one not patented and not described in any printed publication. It is well known that such secrets of trade exist in great numbers, designedly withheld from the public; and when, therefore, the American inventor has been so fortunate as to invent or discover the same thing, he is as great a public benefactor as if the secret did not exist in any foreign country; and it was the intention of Congress to secure to him his rightful property in the result, and not permit it to be defeated by the foreign inventor, coming forward afterwards, either for a patent or without a patent. There is no more reasonable or just foundation, or title of property, than that which has been so imperfectly secured by law in the products of mind; and it is to be regarded as the presumed intention of the legislator effectually to secure it, where the reason of the law will apply, and the language used will admit of a favorable interpretation. In the present case the intention is clear, and the language explicit and unequivocal, leaving no room for construction.

The proviso, without the aid of the sixth section, furnishes a clear rule of adjudication, by which the rights of parties are ascertained, and it is impossible that an executive officer should regard that as an objection to the grant of a patent, which the courts of law are bound to overrule as unavailable. The objection, therefore, which is now presented, that an original bona fide inventor in this country, who verily believed himself the original or first discoverer, at the time of his application, and did not know or believe that his invention or discovery was ever before known or used; and when, in fact, it had not been before invented or discovered by any other person in this country, and had not itself or any substantial part of it been before patented, or described in any printed publication in any country, that the American inventor in such a case is not entitled to a patent for his discovery, because it had been before known or used in a foreign country, is directly opposed to the intent, the policy, and the express words of the act of Congress, and it is without any legal foundation.

In such a case the American inventor is, in contemplation of law,

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under the provisions of the act of Congress, the original and first inventor. The fact that an invention, not patented and not described in any printed publication, has been before known or used in any foreign country, is rendered immaterial, except so far as it may have come to the knowledge of the applicant, and may thus conflict with the oath or affirmation which he is required to take, or with his claims as an original inventor. If he is an original inventor, and is in a condition to take the oath or affirmation prescribed, then the act removes the supposed objection out of the way, requires the Commissioner to issue the patent, the courts to declare it valid, and establishes the American right to the exclusion of the foreign discovery, which has not, in either mode indicated by the act of Congress, been communicated to the public.

I have the honor to be, very respectfully, sir, your obedient servant,

ISAAC TOUCEY.

Mr. Lawrence then went on to read Mr. Morse's caveat, filed January 27, 1847.

CAVEAT.

January, 1847.

To the Commissioner of Patents:

The petition of Sam'l F. B. Morse, of the State, county, and city of New York, respectfully represents:

That he has made certain improvements in electric telegraphs, and that *he is now engaged in making experiments for the purpose of perfecting the same, preparatory to his applying for letters patent therefor.* He therefore prays that the subjoined description of his invention may be filed as a caveat in the confidential archives of the Patent office, agreeably to the provisions of the act of Congress in that case made and provided; he having paid twenty dollars into the treasury of the United States, and otherwise complied with the requirements of said act.

(Signed) SAM'L F. B. MORSE.

WASHINGTON, *January* 26, 1847.

Preamble.

Whereas, among my earliest conceptions of the telegraph, in October, of the year 1832, on board the packet ship Sully, on her voyage from France to New York, I conceived the idea of making the telegraphic signs I had *just* invented, (being *points or* dots and spaces to signify numerals,) by electrical decomposition of certain salts *and chemical compounds;* and whereas the application of the proper means for producing a successful result of this thought was soon after superseded in my mind by another method, at the same time conceived, of marking the said signs, to wit, by magnetism, *produced by electricity*, which is the successful method I have now in use; and having recently recurred to my original thought of applying *decomposition by electricity through a single circuit of conductors*, and discovered a *method* of successfully

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applying the same, as then conceived, to the marking of the aforesaid signs for numerals and letters, and of any desired character, I will proceed to describe the nature of my invention, and the method by which I obtain my results.

The nature of my invention consists, *First*. In the application of the decomposing effects of electricity, produced from any known generator of electricity, to the marking of alphabetic or other signs for numerals or letters *through a single circuit of electric* conductors, by which intelligence may be communicated, marked on cloth, metals, or other convenient material.

Second. In the mode of applying this decomposition, and the machinery for that purpose.

Third. In the application of the bleaching qualities of electricity to the printing of any desired characters.

Class A. I. I use the iodide of tin, in solution.

II. An extract from nutgalls and sulphate of iron, making an ink which colors white cambric cloth of an uniform grey.

III. Acetate of lead and nitrate of potash in solution.

IV. Iodine of potassium in solution.

Into either of these I dip a strip of cloth, or a thread, which is kept properly moistened. All these, *when rightly applied in the instrument, hereinafter described, give a black mark upon* the cloth or thread.

Class B. I. I use the iodide of tin in solution.

II. Iodide dissolved in alcohol.

Into either of these I dip a strip of cloth, or a thread; and if in solution II, I then also dip them into a solution of sulphate of soda. The cloth *or thread* thus becomes of a purple color, more or less dark. The electricity in these cases, when a metallic point or type is pressed upon, or comes in contact with, the moist cloth or thread, bleaches the cloth *or thread*, and leaves the point or the type impressed in white characters upon *the cloth or thread.*

Class C. I. I use sulphate of copper in solution.

II. Chloride of zinc diluted with water.

III. Sulphate of iron.

Into either of these solutions I dip the cloth or thread; and if in No. III, I afterwards dip it into muriate of lime solution, and the electricity causes a black mark upon a bright metal plate beneath the *moist cloth or thread*, but leaves no mark on the cloth or thread.

In the case of marked metals, I propose, by a composition applied to a strip of paper, to take off from the plate, upon which the characters are thus marked, an impression from the said marks.

The machinery which I use for the purposes above stated, is so much of the machinery called the register, in my original patent for the electro-magnetic telegraph, as is employed in regulating the motion of the paper; substituting, for paper, the cloth, thread, metal, or other material prepared in the classes of solution A, B, and sometimes C.

Instead, however, of a magnet and lever, with a pen, I dispense altogether with both, as well as the receiving magnet, and the register

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magnet of my former patents, and substitute therefor the following arrangement sketched in the diagram below:

Description of the machinery. Page

a, is a cylinder, drum, or plate of metal, upon which the moistened cloth, thread, or other substance, *b. b.* passes, and above which is a cylinder, if thread is used, or a small sharp edged wheel *C.* for cloth, or metal in contact with cloth, thread, or metal, and which permits them freely to pass in contact with said cylinder or wheel *C.*, and the cylinder, drum, or plate *a*. The cylinder, drum, or plate, is in connection with the wire of the circuit, by a soldered wire at *d*. The wheel *C.* is connected at *ff*, by a wire with the back of the key at *g*, and when the key is drawn, closing the broken circuit at *h*, the whole line is connected, and at the moment of connection the electricity, passing in the direction of the arrows, passes, of course, through the cloth or thread, the salts with which the cloth or thread is moistened are decomposed by electricity, and a mark is left, in some cases, on the cloth or thread; in others, on the metal; and in others, on the cloth or thread and metal. I use also a simple thread, revolving over two pulleys; the upper one grooved, and the under one plain, and kept moistened with salts, class *c*, when marking is desired on metals. But the cylinder *a*, is then much enlarged; or a metallic plate or strip is passed between the cylinder *a* and the under pulley.

SAM'L F. B. MORSE.

NOTE.—Although I have named, in the above specification, several kinds of salts and substances which may be used for the purpose of marking as aforesaid, I do not confine myself to these, but I use any known substances decomposable by electricity, to produce my effect.

SAM'L F. B. MORSE.

Mr. Lawrence. We now propose that Dr. Page may be examined touching the principles of these machines.

Mr. Gillet. The opposite counsel have asked for the examination of Dr. Page as to the principles of their machine. I had supposed that all that matter had gone over yesterday. Dr. Page was present when both machines were exhibited before your honor, and when their mode of action was explained, so that your honor fully understood it. If his examination is to be farther gone into, I desire that the experts on the subject be present in court when he is examined; and therefore I ask that his examination be postponed till I can call into court persons who understand much better than I do the scientific principles involved. I confess that I am not well acquainted with them. Unless this is allowed, the other side will have a great advantage over me, because I am not able to detect any error in the witness's statement, should he fall into any, nor properly to cross examine him. I wish to have gentlemen here who can detect error, if made, and who may aid me in the cross examination.

Chief Justice. I cannot, under the statute, admit any other evidence

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than the Commissioner had before him. You wish these gentlemen, if I understand it, not as witnesses to testify, but only to aid you in cross examining the witness which the law allows to be called.

Mr. Gillet. Exactly so. Can there be any objection to the postponement of Dr. Page's examination till to-morrow?

Mr. Kendall. We shall make none, if no new witnesses are to be introduced.

The examination was thereupon postponed till to-morrow.

Amos Kendall, esq., now addressed the court, as counsel on the part of Mr. Morse.

When I examined the papers which are filed in this court in the present case, I felt at a loss to know why we are brought here on this appeal. The law, if I understand it, restricts your honor, as an appellate judge, to very narrow limits. It seemed to me that most of the reasons stated on the other side in support of the appeal are beyond the jurisdiction of this tribunal. There is another fact which contributed to put me at a loss, and that is, the admission by Mr. Bain's counsel, that there is no conflict between Morse's claim for a patent and Bain's. If the claims do not interfere, why come here? Would it not be the easiest thing in the world for them to go back to the Patent office, and enter a disclaimer of so much in Bain's claim as may interfere with the claim of Morse? If they disclaim that, they will, according to their own showing, disclaim, in reality, nothing, and then there will be no question here. If they admit that there is no interference, why ask your honor to sit in judgment on their case?

But the first thing to be settled is, what the law is, and what is the jurisdiction and the duty of this tribunal.

The subject of appeals from decisions of the Commissioner of Patents is treated of in the 7th and 8th sections of the Patent law of 1836; and the provision under which this case comes before your honor is in the 8th section. I will read all of it that is material to the present case.

"Whenever an application shall be made for a patent, which, in the opinion of the Commissioner, would interfere with any other patent for which an application may be pending, or with any unexpired patent which shall have been granted, it shall be the duty of the Commissioner to give notice thereof to such applicants, or patentees, as the case may be; and if either shall be dissatisfied with the decision of the Commissioner on the question of priority of right or invention, on a hearing thereof, he may appeal from such decision, on the like terms and conditions as are provided in the preceding section of this act, and the like proceedings shall be had to determine which, or whether either, of the applicants is entitled to receive a patent as prayed for."

The question on which an appeal is allowed is "the question of priority of right or invention:" this, and nothing else. That is the only question which can rightfully be submitted to this tribunal. As to the questions of utility, practicability, patentability, &c., they must all bear on the question of "priority of right or invention," or they cannot come before your honor.

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Let us now see how the tribunal is constructed to dispose of such appeals.

The law of 1836 appointed "a board of examiners, to be composed of three disinterested persons, who shall be appointed for that purpose by the Secretary of State, one of whom, at least, to be selected, if practicable and convenient, for his knowledge and skill in the particular art, manufacture, or branch of science to which the alleged invention appertains."

But the additional act of 1839 provides:

"In cases where an appeal is now allowed by law from the decision of the Commissioner of Patents to a board of examiners provided for in the 7th section of the act to which this is additional, the party, instead thereof, shall have a right to appeal to the chief justice of the district court of the United States, for the District of Columbia, by giving notice thereof to the Commissioner, and filing in the Patent office, within such time as the Commissioner shall appoint, his reasons of appeal, specifically set forth in writing, and also paying," &c. "And it shall be the duty of said chief justice, on petition, to hear and determine all such appeals, and to revise such decisions in a summary way on the evidence before the Commissioner, &c."

Here the manner in which your honor, as the appellate tribunal, is to dispose of all such appeals from decisions of the Commissioner of Patents is declared to be "a summary way," and the only evidence on which you can found such decision is the evidence which was before the Commissioner when he made his decision. You may receive no other evidence whatever, and your disposition of the case is to be summary.

Now, what is the sum and substance of the reasons of appeal which Mr. Bain has submitted; and what is the action his counsel now request from you? The action they request, (and the opposing counsel admitted it to be their chief object,) is that you will return the whole case to the Commissioner of Patents for further evidence. That is the real object in the various points set up in the document they here submit. They do not ask your honor, in conformity with the law I have just quoted, to "decide this appeal in a summary way," on the evidence before the Commissioner, but to procrastinate the case by referring it back to the Commissioner, that they may have a chance to make a new case before him on new testimony, and that the case may then come up again before your honor for decision. This is their object. But is this the object of the law? Are *bona fide* patentees to be delayed and put off in this manner? I trust not. And I say that, under the law which makes you the judge of this appeal, you can neither take new testimony yourself, nor can you direct the Commissioner to take it. The law requires your decision to be given on the testimony he had before him when he made the decision appealed from, and on none other.

And now look at the reasons here given for the appeal.

The first is this: That Mr. Morse has filed in the Patent office a de-

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fective and insufficient specification, drawing, and model of the invention claimed. They say—

"Morse has not filed sufficient drawings, or deposited a sufficient model of his invention, nor has he described it in such full, clear, and explicit terms as to enable a person skilled in chemistry, electricity, and mechanics, to construct and use the same to transmit intelligence. The Commissioner erred in not so deciding. He should have excluded Morse's application for these reasons, and then there would have been no interference with Bain's application."

What has that to do with the question of priority of right? There is not a syllable in this reason, as stated, which has the least connection with it; yet here is a point on which your honor is asked to decide—a point lying wholly without the scope of the law allowing appeals. And, after a long argument from the opposite counsel in support of this their first point, he admits, openly, that their chief object in the appeal is to get the whole case sent back to the Commissioner for new testimony. I do not think I am in error (though I am no lawyer, perhaps,) in saying, that none of these subjects can come before your honor on appeal. They all belong to the Patent office; they have no business here.

The second reason stated is, that there is no substantial interference between the claims of Morse and Bain.

"There is, in fact, no real and substantial interference between the two applications. The Commissioner should so have decided, and granted Bain the patent for which he asked."

Why, your honor, if there is no substantial interference, then there is, and can be, no question of priority in the case. If Morse's invention is not the same with Bain's, then there is no interference. If Bain's claim does not cover Morse's, there can be no interference. And then what point is there for your honor to decide? All you have to do is to direct them to go back to the Patent office and disclaim all that belongs to Morse's invention. If their ground is correct, then they have brought you no question to decide. All they have to do is to go back, and take what they are entitled to under the decision of the Commissioner.

Their third reason refers to the date, in law, of Bain's English patent.

"The Commissioner should have declared the true date of Bain's patent to be the one appearing on its face, to wit, December 12th, 1846, which was before Morse's application or caveat."

Now, if there is no interference between Bain's invention and Morse's, then there is no need that your honor should decide this question. But if there is an interference, then I admit that this reason may belong to the question of priority of invention.

I need not state, before such a tribunal as this, that the Patent laws of England and those of the United States are very different in some respects. In the United States, under our Patent law, the specification is a part of the patent *at the time* the patent is granted. In England it is not so. An applicant gets an instrument which bears the name of a

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patent, but he is allowed, in some cases four months, and in others six, to file a description of his machine or other invention. Until then no man knows, or can know, what his patent is intended to cover. In this very case of Bain's, we have a striking example of this. He obtained a patent in England, in 1843, "for copying surfaces by electricity." Who on earth could have conceived, from such a title, that the patent was to cover this electrical telegraph? Suppose an American had seen such a title of a patent published, he would naturally say, there is no telegraph in this; there is not a word about a telegraph; nor could he divine, until Bain's exemplification was filed, that a patent "for copying surfaces by electricity," meant a patent for a telegraph. But when the specification was read, he would discover that this surface-copying machine was intended for the purpose of sending messages to a distance by telegraph! The machine, which was patented only to copy surfaces by electricity, now is found to be for taking impressions from type, and transmitting them by telegraph. Now, supposing an American had afterwards invented a like machine, *bona fide* as a telegraph, and called it a telegraph, would the Commissioner have refused him a patent for it? By no means. How could he have known, until the British specification was filed, that he was interfering with the Englishman's patent? He could not know it. Yet, according to their doctrine, the English patentee could come here and make the American patent void, because its date was subsequent to the title of the British patent. There cannot be a case more in point. In refusing Bain's patent, the Commissioner only followed the English law, which makes the specification a part of the patent. Even there it is part of the patent, for all substantial purposes. On this point I refer your honor to Hindmarsh on Patents, p. 158.

For many purposes the specification is part of the patent; for all purposes but its own sufficiency and conformity with the title of the patent, it is taken as part of the patent itself.*

Ibid., p. 158, 159.

The specification is one muniment with the patent. Unless there is a variance between the patent and specification, the description is part of the patent.*

Not only have the British courts so decided, but they require the patentee, if he has made any new improvement in his invention *after* the date of his patent, and *prior* to the enrolment of the specification, to insert it in the specification. Hindmarsh, p. 191.

Now, suppose a British inventor gets a patent with a title referring in general terms to the subject of his discovery; shortly after, an American, in this country, makes the same discovery, and, previous to the enrolment, the British inventor hears of it, adopts it, and inserts it in his specification: can that be brought here to cheat the American inventor? If it should be shown, in a British court, that another inventor had discovered an improvement in the interval between the title and enrolment, they would give the patent to the first inventor.

*This is the Reporter's note—not a quotation.

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There is a case on record where it has been so decided. I have not the reference to it here, but Mr. Lawrence will refer your honor to the authority. They sustained the patent according to the date of the enrolment, not giving effect to the sealing, if there was a subsequent inventor.

But be the British law what it will, our law, by the word "patent," means a perfected patent—title, specification, and all; and it is no "patent" till it is accompanied by a specification.

And reason is in favor of this interpretation. According to their version of the law, a British inventor may cover up his invention under some general terms, get his patent sealed, and then is allowed six months longer to complete his description of what it is. Meanwhile he crosses the Atlantic, (which he can now do in a fortnight,) spends some four months in the United States, pirates every discovery that can improve his own, goes back, inserts all these in his specification, enrols it, and then comes over here, and pleads his British patent, to cheat every *bona fide* American inventor. That will be the effect of a decision sustaining the views of Mr. Bain and his counsel.

We maintain that the Commissioner was right. We insist that he did not rely on a merely technical ground, when he held that the specification is, in all cases, a part of the patent—in England as well as in this country. But even if the British law is otherwise, our law knows no patent but such as is accompanied by a specification.

What is a British patent with the name only? It is void, unless the specification shall be filed within six months afterward. And before that is done, is that a "patent" that can be pleaded and used to defeat another inventor? It is against reason, and it is against law.

The 4th reason set forth for this appeal, that the Commissioner erred in letting Morse go back of his application to prove his priority of invention, while he refused Bain liberty to go behind his English patent.

"The Commissioner erred in allowing Morse to go into proof of his invention prior to his caveat and application, and at the same time refusing to allow Bain to make proof of his discovery before the date of his English patent of 1846."

Much argument has been expended here to prove, that an alien and an American citizen are, before our law, upon the same ground. Well, I say that this decision of the Commissioner puts them on the same ground. This, your honor will remember, is not a case where a foreign and an American inventor come before the Commissioner with inventions alleged to be original, and both claiming a patent. What the law would be as to them we need not now inquire; it is not the case before you. In this case one of the applicants has a foreign patent, and one only. Suppose Morse's application was made on the same day with Bain's, would not Morse be cut off from going behind Bain's British patent to prove priority? Surely he would, because the law forbids it; and just as he would be cut off from going behind Bain's, so Bain is now told the same thing, viz., that he can't go behind his own. Here the parties are placed upon the same ground. Or suppose Bain to have

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applied before his English patent was issued, then the parties would be placed upon the same ground. His foreign patent would not then prevent him from standing on equal ground with Morse. But the decision places both on the same ground. If the Commissioner, on the contrary, had said that Bain could go behind his patent to prove priority, then Bain, an alien, a British subject, would be allowed to do what Morse, a native American citizen, could not do. For Morse is forbidden from going behind a foreign patent. The law of the U. S. will not prefer a foreigner to one of our own citizens; so far from it, as the law at first stood, no foreigner could obtain a patent here at all. Now, it is more liberal, and it allows him to come in, on certain conditions, with our own citizens; and I am heartily willing that it shall be so. But still our law prefers American citizens, in several cases. A foreigner, if he wants to obtain a patent here for any new design to ornament articles of manufacture, &c., must have resided one year in the U. S., and make oath of his intention to become an American citizen. In the act of 1842, there are made conditions precedent to his obtaining his patent. But the Commissioner's decision in forbidding Bain to go behind his own foreign patent, to prove originality of invention, puts the foreigner and the American upon the same footing; neither can go behind a foreign patent, unless the same man invents the same thing in both countries.

I might consent to rest the whole case, as to this reason of appeal, on the opinion of the Attorney General; his able and lucid argument is far more conclusive than any that I can make, and it fully sustains the decision of the Commissioner.

The fifth reason alleged is, that the testimony showing priority of invention by Bain, ought to have been received.

"The testimony offered by Bain, to show priority of invention, ought to have been received, as well as that which was intended to show Morse's invention not one of practical utility, or identical with his own."

If the ordinary meaning attached by lawyers to "a *refusal* of testimony" be here understood, we say that the Commissioner did not do so. No evidence was tendered to him on the part of Bain. Bain said that he would put in certain evidence; but, in point of fact, no evidence was presented to the Commissioner on that subject. Bain said that he could, but he did not do it. That is the whole of it. How, then, can the Commissioner be called to account for refusing evidence that was not offered before him? He was not to hunt up evidence for the parties to show; that was their business. Nor was he to wait for it. They ought to have had their evidence ready to produce. The interference was declared by the Commissioner in April, and the case was not decided till August. They had four months to collect it; surely that was time enough. Why were they unprepared? Was Bain to get a year's delay? Was he to have time to go to China for his proofs? I believe, as it was, he did go to England and come back again, during this interval of four months.

But there was another point. Bain offered to show that Morse's invention was not practical or useful, or that it was not identical with his

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own. Well, if so, then it shows that there was no interference, and so this case could not be brought before your honor. As to the practicability or utility of Morse's invention, that was a point that Bain had nothing to do with. That is a question for the Patent office. The responsibility of that decision is theirs, not Bain's. It was enough for him to show that his own invention had some practical utility, without deciding on other people's. But that is a question which does not come here, because it does not touch in any way the only question before this court, which is as to priority of invention.

I have now disposed of the five reasons for appeal set up by the other side; and I will, without farther delay, proceed to the subject of Morse's invention.

And I take the position here that, so far as we have any information, Mr. Morse was the *first man on earth* that ever thought of this mode of telegraphing, i. e., the use of the decomposing effect of electricity on salts to mark characters at a distance. I do not say that he is the discoverer of this mode of marking paper by chemical preparation. That was invented long before. I do not claim it for him; but I say that he was the first who ever thought of applying it to telegraphing. You have before you his oath (as far as that goes) that the idea first occurred to him in October, 1832, as one mode of marking, at a distance, certain signs which he had then invented. He was then in no circumstances to try experiments. It is, however, before your honor, in an affidavit, that he did experiment on the subject as early as 1836 or '7. In support of this position, I will here read the deposition of Simeon De Witt Bloodgood.

Mr. Kendall here read the following:

S. D. W. Bloodgood.—I have been exceedingly intimate with Morse for a number of years; somewhat acquainted with his experiments—generally on telegraphs; at one time a guest in my house for six weeks; was in the habit of visiting his rooms, when I came to the city of New York; before that time, I resided in the city of Baltimore. In relation to this matter, about twelve years ago, I visited him at his rooms at the University. At those rooms, I remember seeing what appeared to be apparatus, and models of the *magnetic telegraph, batteries, wires, types, and a telegraphic dictionary*; think I saw it on this visit; saw a strip of paper with colored marks, dots, and lines, which were made by electro-chemical action; did not see them make the marks. Mr. Morse told me the marks and dots were made by *electro-chemical* action; and, if I am not much mistaken, I saw some phials which appeared to contain some chemical preparations. The marks appeared to be made by the decomposition of salts or acids by electricity. I mean by electricity, in this case, the current of electricity produced by galvanic battery, for the purpose of telegraphic communication. (True Sun produced, 19*th June*, 1834, article "Telegraphs.") At the time I wrote this article, I was one of the editors of this paper. Exhibits a copy of the original article—contains: "We believe at one time Mr. Morse contemplated a chemical preparation of paper on which the galvanic spark would leave a colored mark." I had reference, in this article, to my

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visits *from Mr. Morse*, and the conversations which I have referred to with him.

To the same point, I will further read the deposition of H. A. Munson:

Henry A. Munson.—I have seen nearly all Mr. Morse's experiments, from the commencement of the invention of the telegraph in 1832. The very first experiments I did not see; the first I saw were in 1834. At that time, I believe no experiments were going on. I asked Mr. Morse by what process he would make signals or signs. This, I think, was in the winter of 1834–'5. He said it *was his intention* to prepare paper by some chemical process which would decompose by the current of electricity or galvanism; when it came in contact with the paper, the current was to decompose the *paper and dissolve it*.

I present these documents to your honor to show that the idea, as far as we know, was original with Mr. Morse. In 1834, '5, and '6, he was experimenting; but, deeming his electro-magnetic telegraph a better mode, he suspended his experiments on the other. After he had completed his electro-magnetic plan and got it into operation, he took up his chemical paper project again, and he has asked a patent for it. What is contained in foreign patents would be an interference with him, if he could now go back to these experiments, (and I am not sure that he could not do so;) but he does not claim that now.

I believe that the first patent ever obtained in Europe for telegraphic purposes was that of Davy in 1839; and his invention turned out to be impracticable. Davy made telegraphic marks on prepared paper, by the action of electricity. His plan is now, in the United States, common property.

What is the claim of Bain here? He had a patent granted to him in England, in 1843, "for copying surfaces by electricity," and that patent covers a part of Davy's; but there was no controversy, in fact, between those parties, because both inventions were useless. I believe that neither Bain nor Davy ever erected telegraphs any where. After all these fruitless attempts abroad, Mr. Morse comes in to secure what he can of his original invention—to secure the use of the characters, chemically marked, which he originally intended to record by. And this the other side admit he has a right to do, because they say there is no interference between his invention and Bain's.

But there *is* an interference. Morse's claim, now in controversy, is this: to use a single electric circuit to make his signs by the effect of electricity on salts which leave a mark upon paper. His words are: "What I claim as of my own invention and improvement, and desire to secure by letters patent, is, the use of a single circuit of conductors for the marking of any telegraphic signs, already patented, for numerals, letters, words, or sentences, by means of the decomposing, coloring, or bleaching effects of electricity, acting upon any known salts that leave a mark as the result of the said decomposition upon paper, cloth, metals, or other convenient and known markable material."

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Bain's claim, the third in his application for patent, is a very broad one. It is this:

"Third. The application of any suitable chemically-prepared paper, without regard to the chemical ingredients used for such purpose, to receive and record signs, forming communications; such signs being made by the pulsations of an electric current or currents transmitted from a distant station; said current operating directly, and without the intervention of any secondary current or mechanical contrivance, through a suitable metal marking style, that is, in continuous contact with the receiving paper, thereby making marks thereon, which marks correspond with the groups of perforations in the paper composing the transmitted communication, or may be given by the pulsations from the spring 45 and block 46; so that in either case these form the received communication, substantially in the manner, and with the effects described and shown, including any merely practical variations, analogous and equivalent, in the means employed, and the effects produced thereby."

The leading feature in this claim is the use of chemically-prepared paper to record telegraphic signs. Does not this cover the ground of Morse's claim? What does Morse claim, but the use of the electric circuit to make marks on chemically-prepared paper? Does not Bain use Morse's marks, just as Morse does? Does he not use his key, just as Morse uses his? To that extent, most clearly, the two claims are identical. Bain's swallows up Morse's, and, not only so, but gulps down an immense deal more beside. Well; let them take all the rest; I care not how much it is; let them take all that belongs to them, provided they do not take what is Morse's. We do not object to their getting a patent for all they are entitled to; nor to a fair competition; all we ask is our own. I should say that Bain's claim, if it were patented in England, would be declared void, because it covers the general ground of Davy's. I don't say, however, that your honor is required to examine claims before you, and decide whether they are too narrow or too broad, unless they touch the question of priority of invention.

They have taken another position. They say that the patent of 1843 is the same thing, in substance, with his patent of 1846, and with what they claim now.

Mr. Gillet. What we say is, that it is a part of the same.

Mr. Kendall. A part of the same. Well, be it so. Admitted. And if the patent of 1846 is partly contained in a previous patent of 1843, would not any British court declare the patent of 1846 void on that very ground? If a claimant in his exemplification covers that which he has no right to, his patent, if he should get one, is void for that reason. He claims too much. A specification, in England, is the party's own story; he puts into it whatever he pleases; but if he puts in any thing that he has not invented, and to which he has no right, he is responsible for so doing, and must take the consequences. Here, it is not so. If a man puts too much into his specification, the office

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strikes out so much as is wrong, (notifying the party.) This makes a specification, under our law, in some sort a public document, issued under public authority; but it is not so in England; and there, if too much is put in the specification, the patent is void. The same principle, however, applies here. Now, if they say that the patent of 1843 is the same with that of 1846, then they have got it. But if they say it covers a part of what they ask now, is not that allegation fatal to their claim? The object of the law is a proper one; it is that the party enjoying a patent shall not get a new lease by entering his patent over again. They have got a patent in 1843; if they now get the same in 1849, do they not get a new lease? Surely. And this the law will not allow. They say, themselves, that what is in this claim is part of what they have got already; and if so, it is fatal to the whole claim.

I now call your honor's attention to this point. They say that the third claim of Bain covers all the ground of the first claim of Morse. True, he alludes to two modes of opening and closing the circuit, neither of which is part of the thing patented; one is by perforated paper, and the other is by the use of the key. The contrivance of employing perforated paper is different from Morse's; this we freely admit; and for this Bain has clearly a right to a patent. We do not deny it. But we do deny that he can claim the method of breaking the circuit by using a key; this we do not claim ourselves, nor do we admit that he can claim it. If the use of perforated paper is claimed, then the key is claimed also. We admit his right to the one, but deny it to the other. The key has been in use time beyond the memory of man. All the telegraphs in the United States, and perhaps in Europe also, employ it; if he claims both these, he claims too much. If that is an essential part of the patent he asks for, his patent will be void. By asking too much, he loses the whole. But if he does not claim them, then the perforated paper is not claimed. If Mr. Bain's claim covers the key, then it covers much beyond what Morse pretends to, and much that is public property. I presume, then, that neither of these is intended to be protected by his patent, because that would be fatal to the validity of the patent, if granted.

Then what is to be covered is the use of chemically prepared paper; but this is not patentable. It is already covered by the patent of Davy. If a patent is granted for that, it will be void.

Now, if it is neither of these, what is it that he wants patented?

We call your honor's attention to another point. The claim set up by Bain says nothing of the single circuit, or the double circuit, or of any number of circuits; they claim to do the thing by any circuit, or by any number of combination of circuits. Now these modes of telegraphing have been previously patented. Davy's patent is for doing it by a combination of circuits. A part of the claim, therefore, is covered. If Bain's patent of 1843 is to be taken as a patent for a telegraph, then their present claim covers their former patent. Hear what Bain claims:

"Second. The application of paper so perforated, to open and close

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an electric circuit or *several successive circuits;*" and again, "Third. The application of any suitable chemically prepared paper * * * * to *receive and record signs* forming *communications*, such signs being made by the pulsations of an electric current or currents *transmitted from a distant station.*"

Does not this cover the same ground? If they claim the use of a compound circuit, Davy has it; if a single circuit, they have it themselves.

Mr. Gillet. The patent granted to Bain in 1843, and re-issued in this country, is not in this case, and cannot be drawn into it. It was not before the Commissioner when he made his decision. But we will consent that they may introduce it, if we, too, may go to the records of the Patent office, and to the Congress library, to bring documents on our side of the case, and if your honor is entitled to hear them. That is just what we want. But, as to Bain's patent of 1843, since patented here, it is not in this case. Yet, if they are allowed to go outside of the case to bring it in, we heartily consent to it; provided, only, we may do the same thing.

Mr. Kendall. I see where it hits; but patents are public documents, and may, I presume, be referred to, and used in argument, just as acts of Congress may.

Mr. Gillet. The gentleman is mistaken.

Chief Justice. It was argued, was it not, that the patent of 1846, included, substantially, the patent of 1843.

Mr. Gillet. Yes, your honor; but since this appeal, and since the Commissioner's decision, Bain has got a patent for all that was included in his English patent of 1843, that the Commissioner would allow as new. Mr. Kendall now wants to bring into this case what has been done *since* the appeal was taken.

Chief Justice. It was not before the Commissioner; it cannot come here.

Mr. Kendall. I thought I could refer to it as a public document.

Mr. Gillet. If he can refer to that patent for argument, then we may refer to books; both are public.

Mr. Lawrence. The only difference is this, the English patent of 1843 was before the Commissioner, the American patent referred to was not.

Mr. Kendall. It is important to this case that what has been done by the Patent office since the appeal should be known. But I pass on.

There are some points in the argument of the opposite counsel, which, though they do not belong to the case, I will proceed to remark upon. It has been said that Morse's patents are not in this case. They were certainly before the Commissioner, and I have brought copies of them with me here. If they can be admitted before this court, I desire to refer to them.

Here is one of his patents for telegraphic signs.

Mr. Gillet. We took the position that Mr. Morse's patents, though referred to in his specification, are not in this case.

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Mr. Kendall. But in deciding his case below they were taken into consideration.

Mr. Gillet. They cannot introduce and use these patents of Morse's to help out their lame specification. In that specification he says, that one of the things he asks a patent for is described in his "original patent." Now he had several original patents, which does he mean? We, surely, are not bound to go out of his specification to find out which he refers to. They are not embodied in his specification, nor even distinctly referred to by date or otherwise, and they are not once alluded to in the Commissioner's decision. No, your honor; it is an afterthought. If these patents can be brought in, they will make it a new case. This will at once bring the validity of other patents in issue. They were not before Commissioner in the hearing below, nor are they once alluded to in his decision. They were not attempted to be produced there; if any such attempt had been made, we should have resisted it.

Chief Justice. Are these patents alluded to in Morse's specification? Can his specification be considered as complete without them? Or are they urged against the specification to show it is incomplete?

Mr. Gillet. They are urged by us as against the specification.

Mr. Kendall. They form a part of the consideration on which the Commissioner's decision was grounded. If they are not submitted here by the office to your honor, they ought to be. We are ready to show that a specification alluding to an old patent on record is good. It is not needful to recite the old patent in the new one. Patents are public papers, on record, which all can get at. Cannot I, in argument here, read from any book, or any public paper? If they are testimony, your honor can send to the Patent office and direct them to be brought here. The opposite counsel read their law authorities out of law books; cannot I read from books also?

Mr. Lawrence. Your honor is to decide here on the evidence which was before the Commissioner. Now, as head of that office, he is bound to know and to notice all patents recorded in the office. He is bound to declare a patent claimed, if it conflicts with any patent already granted, void. But how can he know that it does conflict, but by comparing it with the patents already in his office? When a patent is issued, it is open to the whole world. The specification is part of the patent. It is this which declares what it is which is patented. And all specifications are of record in the Patent office; and in any subsequent specification it is sufficient to refer to those already on record. It is a thing known to the law, known to the office, known to the public, and it can be referred to by its official name. But if not, are you to judge of that? Should not that point have been settled in the initiatory proceedings? This error, if error it be, should have been corrected at first; this cannot come here on an appeal. But we insist that all patents on record in his office are before the Commissioner, and he is bound to notice them. It is a requisition of the law, that he shall not grant a patent for what conflicts with any thing already granted, and on record. It is his business to know what is on record in his own office.

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Mr. Gillet. They have not come up to the question before your honor; they have started another question. I said that your honor cannot look at, or consider, any evidence but that which was produced before the Commissioner below. He has stated to your honor what that evidence was, and he has returned it here. Morse's other patents form no part of it. There is no reference to them in his decision. The opposite counsel want to bring in new evidence to show that Bain did not make a good application; but that is a matter already decided by the Commissioner, and they cannot now question it. The real question is, can they go outside of their patent, to introduce other patents, in order to complete Morse's lame and insufficient specification? Besides, if they were to bring here the whole of the records of the Patent office, could your honor decide which is Morse's "original patent?" What is an "original" patent? Is not every patent original? If by "original patent," Morse means the first patent ever granted to him, that patent was granted in France. Are we, is your honor, to send and search the official records of France to find Morse's French patent, and when we have found it, to take that as a part of his specification filed in the Patent office here? "K is the metal key in my original patent." Here are two patents already in court; he has obtained, in all, from six to ten. The first was in France. Again, he speaks of certain telegraphic signs "already patented." Patented when? Patented where? In France, for aught we know. Can your honor say which is "my original patent?" Before you can decide that, there must be new evidence to ascertain which of all his patents he means; and can your honor receive new evidence on an appeal? The Commissioner never had such a thought as sending other patents of Morse's here. We protest against their mending their lame and vague specification, and bringing new matters into controversy, which we have had no opportunity to controvert.

Mr. Kendall. "Original patent" means, of course, his first patent.

Mr. Gillet. Oh, yes, "original" is "first," and "first" is "original." That is a sample of their mode of reasoning. They argue in a circle. "Original!" "Oh, yes, that means the first;" very well, and which is his first patent? "Oh, his first patent is his original patent, of course!" But they do not tell us which patent he means. They will not deny, I think, that Morse's "first" patent was obtained in France, and they say that by "original" he meant the first.

Mr. Kendall. It is the parlance of the Patent office.

Mr. Gillet. It is the parlance of the English language. The first patent is conceded to have been obtained in France; can we here be referred to records in France? Are the records of France a part of this specification? If not, their specification is lame, defective, insufficient. The patent referred to in it is not designated or specified by name, date, or country; and they are forced to admit that Morse's first patent (if that is his "original" patent) was obtained in France. Are we, I again ask of your honor, bound to go there to find what ought to be in this specifica-

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tion? If not, then they cannot bring in this bundle of patents which do not belong to the case.

Chief Justice. Were not those patents before the Commissioner? They are alluded to in the specification; and is not the Commissioner supposed to know what these patents are?

Gillet. No, your honor, they were not before the Commissioner.

Chief Justice. Was not Morse's patent before the Commissioner as well as Bain's? How, then, could he declare an interference?

Mr. Gillet. The question of interference is a question between the applicants. This patent was not before the Commissioner. Morse's other patents were not in controversy before the Commissioner at all. The reference in the specification is to "my original patent," which original patent is in France, and not before Mr. Burke. His decision was between two applicants for a patent.

Chief Justice. Were not the patents before the Commissioner which are alluded to in Morse's specification?

Mr. Gillet. No. He has not so much as referred to them. They were not before him. This attempt to introduce other patents is taking us by surprise, and to permit it must do us great injustice.

Chief Justice. If these patents were not before the Commissioner, they cannot come before me. I am confined by the law to what was before him.

Mr. Kendall. This was a document on which the Commissioner decided in this whole matter. All these patents were there. He was bound to look at them in his decision. What man of common sense would think of going to France for the patent referred to? Our language refers to our own Patent office, and to nothing else. The Commissioner is obliged to know and to notice what is there. That patent no part of the case; when this forms an esential part of Morse's claim? We were not forced to get a copy of the French patent and submit it to the Commissioner. If these patents are evidence in the case, then the Commissioner has not sent up all the evidence which was before him. The gentleman alluded to these very patents himself.

Mr. Gillet. I did not. He is mistaken.

Mr. Kendall. Well, he certainly took the ground that those things which formed the characteristics of Mr. Morse's invention were not patentable.

Chief Justice. If these patents are admitted, it can only be as an explanation of Mr. Morse's application, where they are referred to.

Mr. Kendall. That is all we want.

Mr. Gillet. We contest their right to bring in these patents here. If they do, they will put these on record, that they make a part of Morse's specification. Can your honor tell, without further testimony, whether they produce the originals or not? They are not proved. If they can introduce these, they may introduce into their specification whatever they please. Morse might as well refer to "the first letter I wrote on the subject of the Telegraph." Who could know what letter he referred to, or what it contained? The language is vague. He

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says "my original patent." Now, they are compelled to admit that his first patent was got in France, and his counsel says that his "original patent" means his first patent.

Mr. Kendall. The first in our Patent office.

Mr. Gillet. No, sir; you cannot now amend your former position. He says, I alluded to these patents yesterday; he is mistaken. I did not. I said, that his "key," here spoken of, was not in his first patent; and that if he alluded to dots, marks, and spaces, he would claim only such as were his own. They want to bring in these patents, not to explain the meaning of Morse's specification, but to show that Bain's claim is invalid, because Morse had patented what he claims before. That was Morse's position; but that question was not before the Commissioner. The conflict there was between two applicants, and not between Morse's and Bain's former patents.

If they want to go back to the Patent office, we are ready to meet them there; but to bring Morse's other patents before your honor, on this case of appeal, is clearly wrong, and involves a useless consumption of time. It is an attempt to draw off your honor's mind from the true issue, to another which is not before you.

The Chief Justice called for Mr. Morse's specification, and examined those parts of it where he refers to his former patents.

Having examined the specification, and also looked at the patents produced by Mr. Kendall, he said:

The question is, whether it is competent for Morse to show what his "original patent" was, by its production from the Patent office. That is what is offered.

Mr. Gillet. Yes, your honor. These are offered here to show that Morse had previous patents which conflict with Bain's claim.

Chief Justice. It seems that the Commissioner understood what Morse meant by "my original patent."

Mr. Gillet. I doubt if he did. If these patents are introduced, we shall produce an affidavit, that Mr. Morse's first patent was filed in France.

Chief Justice. Morse's original patents cannot be produced before me.

Mr. Kendall. Cannot the Commissioner send them up?

Chief Justice. If they were before the Commissioner they should be here.

Mr. Lawrence. If the Commissioner says they were before him?

Chief Justice. Then I should have to take testimony on that fact, which cannot be done.

Mr. Lawrence. No question the Commissioner understood the reference made to patents recorded in his office. If the specification is not clear, they should have had it made clearer.

Chief Justice. This argument cannot be continued farther. I decide that these patents cannot be produced here before me, unless they were before the Commissioner.

Mr. Kendall, bowing to the decision, proceeded:

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The counsel for Bain try to deprive Morse of the protection of his caveat; to do this they maintain that the date of his application must alone be looked at; that Morse cannot go behind that.

The practical effect of a doctrine like this will be to make the 12th section of the Patent law of 1836, a provision for the benefit of the foreigner, to the injury of the American citizen. By that section, an American citizen, after filing a caveat, should another American citizen claim the same invention with him, is protected by his caveat. It is a complete protection, as against any other American; but, if their doctrine is true, it is no protection at all against a foreigner. Against him he must plead the date of his application, and of that alone; he cannot refer to the date of his caveat; that is no protection. In reply to this interpretation, it is only necessary to say, that the law itself expressly provides that the caveat is to be treated as an application, let the counter-claim come from where it will. The words of the act are these, "that any citizen of the United States, or alien, who," &c., and "shall have invented any new art, machine, or improvement thereof, and shall desire further time to mature the same, may on paying" &c., "file in the Patent office a caveat, setting forth the design and purpose thereof, and praying protection of his right till he shall have matured his invention;" "and such caveat shall be filed in the confidential archives of the office, and preserved in secresy. And if application shall be made by any other person, within one year from the time of filing such caveat, for a patent of any invention with which it may, in any respect, interfere, it shall be the duty of the Commissioner to deposite the description, specifications, drawings, and model, in the confidential archives of the office, and to give notice (by mail) to the person filing the caveat, of such application, who shall within three months after receiving the notice, if he would avail himself of the benefit of his caveat, file his description, specification, drawings, and model; and if, in the opinion of the Commissioner, the specifications of claim interfere with each other, *like proceedings may be had* in all respects, as are in this act provided in the case of interfering applications."

Like proceedings may be had as in the case of interfering *applications*, i. e., the caveat shall be considered and treated as an application. This provision is the same to a foreigner and a citizen. If it excludes a citizen from this benefit, and not a foreigner, then it is for the benefit of the foreigner. Such an interpretation makes a caveat conclusive for the benefit of a foreigner over an American citizen; but such is not the operation of our law; it provides that, in all cases, and against all persons, a caveat is to be treated as an application.

Much has been said here about "ground circuits," and the details of Bain's telegraph, because they lay it down as a part of Bain's patent that he claims the earth as a part of his circuit. But this ground circuit, as it is called, i. e., a circuit of which the earth constitutes a part, is not the discovery either of Morse or of Bain.

Mr. Gillet. That we deny.

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Nothing of these parts or materials of a circuit, neither iron, brass, or earth, is patentable; they are all public property, and were so long ago. They claim that Bain was the discoverer of the ground circuit, because, in 1841, he described it as a part of a machine of his. Why, our Franklin discovered it. It was ascertained by him that the ground acted as a conductor between two wires. That is called the ground circuit. Steinhiel knew that in 1839. On this point I refer your honor to the "annals of electricity," vol. iii, p. 451. He there details experiments for a telegraph, and speaks of the place of a conducting wire "being supplied by the ground itself." I would show that experiments were made to the same effect before him, in which the ground was used as part of a circuit. But that is no part of the application now. It is open to all the world; and Bain is entitled to no credit for it, either as inventor or combiner.

There was exhibited, here, before your honor yesterday, a printed copy of "information," issued from the Patent office, for the use of inventors and applicants for patents, in which a clause formerly inserted in those items of information had been erased by drawing a pen through it. It was the clause which declared that foreign patent commenced with the date of the patent; and the inference drawn by the opposite counsel was, that this erasure had been made at the office in consequence of this case, or to meet it. Now, I happen personally to know that that alteration was made before this case arose. Copies of these instructions were given out, previous to its occurrence, which bear this erasure on their face. But, if it were not so, and the Patent office was once under a mistake on this point, it is their duty to correct the mistake. The question is, whether the office is wrong *now*. Errors in construction of law are to be corrected. To count the date of an English patent from the day of its sealing may have been the former practice; but, if it was found to be wrong, it is their duty to correct it. The question is whether, as it stands, it is right or wrong now. The Commissioner tells your honor that his decision is in conformity with the practice of the office, and not a special decision applying to this case only.

Mr. Gillet. In his letter to the Attorney General, requesting his opinion, the Commissioner tells him that there had been no cases before that time.

Mr. Kendall. The position is taken by the learned Solicitor that, in order to obtain a patent for his invention, a man must be the original and first inventor as to all the world. If that general proposition is without exceptions, it is in the very face of the Patent law itself.

What does the 7th section say? That the Commissioner shall examine the alleged new invention; "and if, on any such examination, it shall not appear to the Commissioner that the same had been invented or discovered by any other person '*in this country*,' prior to the alleged invention or discovery thereof by the applicant, or that it had been patented or described in any printed publication in this or any foreign country, or had been in use," &c.

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In the 8th section is a clause on which great stress has been laid. "But nothing in this act contained shall be construed to deprive an original and true inventor of the right to a patent for his invention, by reason of his having previously taken out letters patent therefor in a foreign country, and the same having been published at any time within six months next preceding the filing of his specification and drawings."

Your honor will see the distinction between the first clause and the last is the distinction between the discovery and the publication. The last clause embraces the foreigner, the first embraces the inventor "in this country" only. The omission of the foreigner in the first clause makes it plain that the Commissioner is to give a patent, if the applicant is the first discoverer "in this country;" but if the thing previous, to his application for patent, had been already patented abroad or here, or described in any printed publication, then the patent is to be refused.

Now, connect this with the 15th section, which provides for taking testimony in cases of suits at law. Look at the first proviso in that section: "Provided, however, that whenever it shall satisfactorily appear that the patentee, at the time of making his application for the patent, believed himself to be the first inventor or discoverer of the thing patented, the same shall not be void on account of the invention or discovery, or any part thereof, having been before known or used in any foreign country; it not appearing that the same, or any substantial part thereof, had before been patented, or described in any printed publication." Here it is declared that the patent shall not be declared void on account of a previous discovery of the same thing abroad, unless patented or published, provided the applicant believed himself, when applying, to be the true inventor; and though in that he might have been mistaken, yet, if he is the first inventor "in this country," and gets his patent, he shall not lose it. This provision of our Patent law takes this class of cases out of the general rule. It means this, or it means nothing. A thing must have been invented before it is put in use; yet, if an American citizen is a *bona fide* inventor of it here, and gets it patented, he shall not be deprived of his patent, unless the thing was patented or described in a printed publication; because, otherwise, he had no means of knowing that it had been known or used in a foreign country. So in the last class of cases, it is not true that the claimant must be the first inventor against all the world. But it is true that he must have been the first inventor "in this country" against all the world, unless it had been described or patented abroad.

This construction makes the two sections of the law consistent with each other; but if this construction be rejected, they are not consistent. The construction contended for by the other side repeals a part of the 15th section entirely.

It was admitted in argument by the other side that the Commissioner could not grant a patent which the courts would immediately quash. But this could not be so, if the unqualified proposition was true that the patentee must be the first inventor against all the world.

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I confess I was a little surprised at the ground taken by the counsel of Mr. Bain, (although that has nothing to do with this appeal,) that a mechanic, however skilful, could not make Morse's machine from the drawings filed by him with his application. Why, what can be more simple? Not make such a thing as that? Why, I could make one myself with my penknife! Any mechanic can understand every part of it from the drawing and description. The counsel might, with far more propriety, say that no mechanic could make that other machine that stands yonder. I confess that I do not myself yet understand all of it, and I would not even attempt to understand Bain's specification. That of Morse is very simple. It is wholly free from all complication; and that, indeed, is the great merit of all his inventions. It seems to mark his genius; all that comes from it has the characteristic of the greatest simplicity.

There have many other points been raised, which it is scarcely necessary to touch upon.

It has been said that certain chemicals are claimed in Morse's specification. Morse's specification does not claim one of them. He does not pretend to be the inventor of any one of them. They are all public, and were well known long ago. Scientific men long since discovered how paper may be colored by chemical action and the effects of electricity. He *names* certain substances which he uses to effect this end, but does not *claim* any one of them. His claim is to the use of all paper prepared in that way for telegraphic purposes.

Bain's claim is in the same shape. In his last application, he does not specify any chemical combinations to color his paper, neither does Morse in his. In this respect, they are both on the same footing. Morse's specification would have been just as good as it is if he had not named one of them. The law contemplates all these matters as already fully known. There was no need that Mr. Morse should have named any of them; but the mention of them does not vitiate his claim. In this both claimants stand upon the same ground.

Chief Justice. It was argued that the specification of Morse is defective, because it does not give the proportions of the ingredients employed. Should not some notice be taken of that point?

Mr. Kendall. That comes under the same principle. Neither of the parties claim, as their invention, the art of marking paper by an electric decomposition of salts. The combinations enumerated by Morse are all known, and are all public property. The man who wants to use them, if he does not know their exact composition, applies to those who have scientific knowledge for the requisite information; but, in the eye of the law, all these things are already known. The party is as much bound to know the combinations as to know the result. Morse does not claim the combination of these chemical materials; they are all public property, and so are their chemical combinations. The claims are for the use and application of them to effect a particular purpose. If Morse had claimed to be the discoverer of making marks on paper by the decomposition of salts, formed in such and such a way, and

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had asked a patent for it, then, doubtless, he would have been bound to tell the proportions of any mixtures he employed. But the proportions of those he does name are as well known as is the fact that they may be decomposed by the action of electricity. Neither Morse nor Bain claims to be the inventor of these things; but both claim the use of them in combination with other things.

Much was said, too, about Morse's not being the inventor of the little wheel, of the metallic drum, of the ground circuit, &c. Neither does he claim to be. He only takes up these things, already invented by others, and combines them to produce a result never thought of before. He puts old things together to produce a thing totally new. And, in fact, the greater part of modern patents are for combinations only. They make a mighty matter of it that, in his electro-magnetic machine, he was not the inventor of this thing and of that thing; all which is true. He was not the inventor of the battery; he was not the inventor of the key; he was not the inventor of the ground circuit. Granted; he does not claim to be. But he is the inventor of a new result from the use of these old means. His present claim is not for the invention of the decomposition of coloring salts by electric action. He might, perhaps, once have claimed that, and claimed it successfully; but he can't claim it now, and does not. All he wants is to save what remains of his original invention.

The Court here adjourned to to-morrow, at 10 o'clock.

THURSDAY, *February* 8.

The Court was opened at 10 o'clock. Present, Chief Justice Cranch.

Mr. Kendall. We wish, before proceeding further, that Dr. Page may be examined.

Dr. Page appearing—

Mr. Kendall said the purpose, and the only purpose, for which the law allows an examiner of the Patent office to testify in a case of appeal, is that of explaining the "principles of a machine" that is in controversy. We now wish the witness to state to this court the principles of the two machines, that of Mr. Morse, and that of Mr. Bain; to state wherein they agree, and wherein they differ.

Mr. Gillet. The counsel asks of the witness what he is not entitled to ask, and what the witness may not lawfully answer. He cannot go into that. Mr. Kendall can examine the witness only as to the principles of his own machine. Dr. Page is not to pass judgment on the point whether these two machines are or are not alike; that is a question which ought to have been settled below; it is outside of this case. He may explain what are the principles of Mr. Morse's machine, in reply to questions by Mr. Morse's counsel; but he may not explain the principles of Mr. Bain's, unless called upon to do so by us.

Chief Justice. I suppose I may ask him myself.

Mr. Gillet. That is a point I have not examined. But even if your honor may ask him to explain to you the principles of Bain's ma-

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chine, as well as Morse's, you certainly may not examine him on the question of difference or no difference between the two. They have not got their case right.

The Chief Justice examined the words of the law.

"At the request of any party interested, or at the desire of the Judge, the Commissioner and examiners in the Patent office may be examined under oath *in explanation of the principles of the machine* or other thing *for which a patent, in such case, is prayed for.*" Additional act of 1839, sec. 11.

Mr. Gillet. He has no right to institute comparisons. If they want him to explain the principles of their machine he can do so. The principles of ours have been explained already. This witness is not called by the Judge, but by the counsel of Mr. Morse; and most clearly they cannot ask their witness whether their machine differs from ours. For if, on such an examination, they can only get the witness to come up to their mark, they can swear your honor out of your jurisdiction, by swearing to the very question you have to decide. If they can prove it by testimony, then there is no need of a judge to decide it. It is plain they can swear their case through.

We have no objection that they shall examine Dr. Page on their own machine; but not on the question of similarity or dissimilarity, identity or no identity; because we have no opportunity of refuting his opinion. That is a question for the court after hearing his explanation of the principles of the machine, as the law allows him to do.

Mr. Lawrence. So far as this witness is examined on the principles of our machine, he is within the statute, which allows him to testify "in explanation of the principles of the machine or other thing for which a patent, in such case, is prayed for." This provision in the additional act of 1839 is a modification of the 7th section of the act of 1836; and it has reference only to that act, and it changes the appellate jurisdiction from a board of examiners to the chief justice of the district court for this District. The 7th section of the law of 1836 shows the case to which this part of the law of 1839 has reference.

"But if the applicant, in such case, (viz., when notified of the defectiveness or insufficiency of his specification,) shall persist in his claims for a patent, with or without any alteration of his specification, he shall be required to make oath or affirmation anew, in manner as aforesaid; and if the specification and claim shall not have been so modified as, in the opinion of the Commissioner, shall entitle the applicant to a patent, he may, on appeal, and upon request in writing, have the decision of a board of examiners, to be composed of three disinterested persons, who shall be appointed for that purpose by the Secretary of State, *one of whom*, at least, to be selected, if practicable and convenient, for his knowledge and skill in the particular art, manufacture, or branch of science to which the alleged invention appertains; who shall be under oath or affirmation for the faithful and impartial performance of the duty imposed upon them by said appointment."

(The counsel of Mr. Morse here conferred together.)

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Mr. Lawrence. On looking at the law, I find I was mistaken.

Now, what is the object of the permission that an examiner in the Patent office may testify before your honor? Is it not, obviously, to inform the court of the principles on which an interference is claimed by one of the parties to exist; and if so, must not both the machines be explained to the court? It is futile, and a mere cavil, to pretend that one of them may be explained and the other not.

Mr. Kendall. The law speaks of "*the* machine;" and here are two machines. The learned Solicitor insists that only one can be examined by this witness, and the great puzzle is, to determine which of the two it is. Let us, then, take them in detail. Here is our machine; we want the witness to explain the principles of ours; and then let him explain, in like manner, the other machine, of Mr. Bain's. For Bain's machine is as much "the machine" "for which a patent is demanded" as ours is. The law, in this case, must refer just as much to the one machine as to the other. How is your honor to get at the information, or determine whether there is or is not an interference, unless both machines shall be explained to you? If there was but one machine brought before you, that, of course, would be "*the* machine" to be explained; but here are two. The Judge may question the witness in regard to either; but there can be no difference in his right to testify whether it is the Judge who calls him, or he is called by one of the parties. I see no objection there can be to his testifying as to both machines. If he cannot testify as to both, then it is useless to call him. His testimony to both machines is necessary to the very object of the examination.

Mr. Gillet. They have replied to only one branch of the objection; and there are two branches. The first is, that they can examine their witness only on the principles of their own machine. The wording of the law is ambiguous. The opposite counsel asks, what will be the consequence if the Judge calls on the witness to testify as to both machines? When the Judge shall make that call, it will be time enough to answer that question. The Judge already understands, fully, the principles of our machine; on that the examiner cannot enlighten him. It is too plain and too simple to need any explanation. It may be, and I think it very likely, that theirs does need explanation. I suppose, without some explanation, and not a little, no man can take those scattered fragments which lie there, wrapped up in separate pieces of paper, and put them together, so as to make the machine that Morse claims. That, perhaps, is just what he wants this witness for, to show that all these different things can go to make up such a machine.

If the principles of the machine to be made up out of these fragments is identical (as they say) with that machine which your honor saw and examined above stairs, and which was actually at work, then there is no need that the examiner should be examined about the matter. The counsel says his machine is all plain and simple; he could make one with his pen-knife; then, what does he want a Patent office examiner for? What need is there of calling one of the official examiners in the office to explain it?

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But, as I said, he has not answered the main point in my objection. They have asked Dr. Page to testify wherein these two machines differ, and wherein they agree. He wants this witness to swear to their identity; that is what he is after. He wants your honor to take the opinion of this witness on the question which is submitted to you to decide. He wants to save your honor the trouble of applying your strong and discriminating mind to the question referred to you, by getting a witness to swear the two machines to be alike, and thus avoid your judging that question. It is a judicial question, and it is your honor who is to decide it.

But they say that unless he testifies as to both machines, there will be a difficulty. Well, if that is so, it is a matter that should have been attended to below. They have not more than half done what they should have done before coming here. This very difficulty helps to show the necessity of remanding the case for farther testimony. The witness is not to compare the machines. He may tell how electricity acts upon certain salts, and all that. But these are not matters in controversy; whether the two machines are or are not alike is.

Chief Justice. The law declares, (see the words above.) I understand that in this case each party prays for a patent. Then the invention of each is to be examined. They may be explained *seriatim*. The Judge is to decide whether they differ in principle, or not. The question may be put to the witness, "What are the principles of Morse's machine?" and then, "What are the principles of Bain's machine?"

Mr. Gillet. Will the counsel reduce their questions to writing?

Mr. Kendall. I will. He then put the question in these words:

"Please to explain the principles of Morse's and of Bain's machines involved in this controversy, models of which are before this court."

Chief Justice. You had better put the question as to each machine separately. Ask first what are the principles of Bain's machine.

Mr. Kendall. I will alter the question. He thereupon added, "beginning with Bain's."

Dr. Page. Am I to explain the principles of the machine, or of the invention, or of the claim?

Mr. Gillet. Of the machine. So says the law.

Mr. Lawrence. It also says, "or other thing."

Dr. Page. There are many mechanical principles which enter into the structure of the machine which are not in controversy, but which are common to all machines. Am I to go into them, or only into such as are distinctive of this machine?

Chief Justice. The question is, what are the principles of this machine?

Mr. Gillet. The principles of Bain's machine, your honor saw yesterday. I believe you fully comprehend them. There was an electric current which went round and round in a circuit, which circuit was broken by a key. All that is involved in controversy is the machinery.

Chief Justice. What is the motive principle?

Mr. Gillet. It is the effect of electricity.

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Mr. Kendall. There are decisions by the courts as to what are the principles. The question here is, as to the *modus operandi*.

Chief Justice. I should like to see those decisions. I recollect there are such.

Mr. Kendall. I refer your honor to 1 Gallison, 429 and 478. The case is epitomized in the 'List of Patents' p. 42. It is Whittemore vs. Cutter. The question is, not whether the same elements are employed, but whether the same methods.

3 Washington, Cir. Ct. Repts., p. 443. Evans vs. Eaton. If two machines by the same operation produce the same result, though they may differ in form, are the same in principle.

Judge Story lays it down as a general rule, that if the same power is employed, and substantially the same instrumentality, for producing the same result, then the principles of two machines or inventions are the same.

So, your honor sees, that the principle of a machine involves the whole *modus operandi* of that machine.

Chief Justice. The first question will be, as to the power employed in Bain's machine.

Mr. Gillet. The positions taken by the opposite counsel are not considered to be correct. The cases he has quoted do not sustain him. They do not state what the principles of a machine are; they only lay down rules for your honor's guidance in comparing the two, when the principles of each have been stated. He has not cited one case to show what the principles of a machine are.

I refer your honor to 1 Gall., 476. I read the note there. [Here he read the note.]

Chief Justice. There is a note on the margin, which says: [Here he read the note, in substance as follows:]

The question is not what is the motive power, but what is the modus operandi.

Mr. Gillet. I further refer to 2 Gall., 51, in substance as follows:

The original inventor gets the patent; mere colorable differences not to effect his right.

The case they here cited, from 1 Gall., 476, is point blank against them. It declares that the principles of a machine are not the original elementary principles of motion, but the *modus operandi*. The case Judge Story had before him was substantially like the present case, and in that case he decided, that "the principles of a machine" are not the original elementary principles of motion.

I suppose the object of having this witness sworn, is to enable the Judge to understand what he did not understand before. Now, if there is any thing about Bain's machine, as it has already been explained to you, which your honor does not fully understand, it will be easy for you to inquire of the witness on those points. If the two machines are the same, (as they say they are,) then there can be no need of examining the witness.

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Mr. Lawrence. We propose to modify our question, so as to make it follow the exact words of the law. There can be no objection to it in that form. "What are the principles of the machine?"

Mr. Gillet. That is not the question. We make no objection to the form of the question they have put as it now stands. They will not get over the difficulty by making it follow the words of the law, and letting the witness judge for himself what it means, and what the principles of a machine are.

Mr. Kendall. The principles of a machine do not consist in the elements of motion employed, singly considered; nor in the machinery, taken by itself; nor in the result separately taken. They consist in the whole of these together.

In determining the modus operandi, we must take the elements of motion used into the question as well as the machinery; all are involved in the principles of a machine. A machine without a power to put it in motion is nothing; and so the power, without the machine, is nothing. It is the way in which the power and the machine work together that constitutes the modus operandi. When the modus operandi in both machines is understood by your honor, and appears to you to be the same in both, then you will decide that the principles of the two machines are the same. But, if there is an essential difference between them in the power used, the means employed, and the result produced, then you will decide that these principles are not alike. All these must be taken into consideration; you must look at the power, the machinery, and the result.

Mr. Gillet. The case cited by themselves says directly the opposite.

Mr. Kendall. If it does, our citations do not settle the law.

Chief Justice. The first question is to settle what is the motive power, then the means employed, and then the effect produced. When these points are settled, it will be my duty to decide whether the two machines are or are not the same in principle, and whether there is any interference.

Mr. Kendall. The witness will then begin, and explain what is the motive power in Bain's machine.

Dr. Page. The motive power in Bain's machine is a weight, operating through clock work, as in a clock. We must also suppose there is another motive power employed, viz., the human hand. Another power in operation, but not "the motive power," is galvanism. This power is brought to bear on the machine by the hand and by a weight, so as to make marks on chemically prepared paper, by the decomposition of the materials in the paper.

The galvanic current, so brought to bear, must of necessity pass through the chemically prepared paper to produce an effect on the materials in the paper, in order to give to the paper the property of transmitting communications to a distance.

Mr. Gillet. Nothing is here in controversy in regard to the paper. That is not "the principles of the machine." The composition or

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preparation of the paper is not now in controversy. It is the machine, not the paper, that the witness is authorized to speak about.

Mr. Kendall. Your honor cannot arrive at any result as to the instrumentality employed, unless you understand how the paper is used, though the paper itself is old; and so is galvanism old too. It is the modus operandi that you are to decide upon.

Judge. You had better first inquire what is the object to be effected; then the means by which it is accomplished; then I can judge whether the two things interfere or not.

Mr. Gillet. The specification, drawings, and model give you the object to be effected, and it is from them that your honor is to judge, and not from the opinion of this witness. What he thinks is not the rule by which this court is to be regulated. I see what is the object aimed at. They calculate to swear by your judgment altogether, to avoid and supersede it, and get your honor to pronounce your judgment of another matter. All that they now ask is contained in the specification. If your honor does not understand the machine, the best way will be to set it in motion and let it work. This we have done with ours. Let them do the same with theirs. The testimony of the witness must be confined, under the statute, to "the principles of the machine;" he is not to testify about the paper. They do not claim a patent for the paper. If the composition of the paper is one item in their application, very well; then he may testify on that point; but if not, your honor may not inquire of the witness as to the paper. I am surprised that the witness should slide off, as he has done, to speak of matters about which no question was asked him.

Dr. Page. As to the passage of the galvanic current, I have explained how it acts on the paper.

Mr. Gillet. That is their difficulty.

Mr. Kendall. I do not know what warrant the counsel on the other side has for saying that we have brought this witness here to swear round your honor's judgment, and supersede it. They have the same power to call witnesses, and to interrogate them, that we have. They could have called this witness, or any other that the law allows to testify here. Your honor's mind, like the mind of every other human being, cannot understand a thing that is new to it, without having it explained by those who do understand it. From the position taken by the counsel on the other side, since Dr. Page has been put upon the stand, we might, with at least equal reason, impute to them a wish to keep out the light, as they have to us a design to bewilder and mislead.

Chief Justice. There can be no need for such remarks. I hope the counsel on both sides will abstain from them, and proceed with calmness and deliberation.

Mr. Kendall. I know that such imputations are improper, and cannot be allowed. I should not have indulged in them had it not been done on the other side. But I will forbear.

Mr. Gillet. They seem to suppose that we are under some fear of the light; so far from it, our wish and our design is to have this whole

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case sent where it can receive light, like that of the noon-day sun. Let further testimony be taken, and it will appear as clear as the sun.

Mr. Kendall. The question is not now, what we claim to patent; the question is, what is the modus operandi of our machine. Is it not pertinent to ask what we now ask of the witness? He must take old means as well as new into his explanation, or it will not be intelligible. We do not seek to patent galvanism, nor the use of a weight, nor the use of a hand; but we claim to use them all, and thereby produce a new result.

Chief Justice. I do not know that the principles of the machine can be got at in any other way than by inquiring how the machine operates. I am authorized by the statute to ask this witness, "What are the principles of the machine?" But to know, I must know the effect intended, and how it is to be produced.

Mr. Gillet The way to understand a machine is to make it work, and, as it operates, to explain how; and not to let a witness go into a general statement of its principles.

Chief Justice. I am not confined to an examination of models or of drawings; I can ask a witness questions both as to the design of the machine and how that design is accomplished.

Mr. Gillet. They do not bring here any machine that will work, but want to get from their witness a general statement of principles. He can take the machine itself and explain from that how it accomplishes its end; but may not lay down a set of general abstract principles to control your honor's judgment.

Chief Justice. What is the question now put to the witness?

Mr. Lawrence. We have put it in the very words of the law. It cannot be objected to.

Mr. Gillet. The question has been reduced to writing by the opposite counsel, and it can not be now altered. But the witness went outside of it by volunteer testimony.

Chief Justice. I can ask the witness what is the modus operandi employed to produce the result?

Mr. Gillet. Undoubtedly; but if the witness goes outside of the question put to him, it is our duty to object to it.

The question was again read (from the notes of the reporter, the original paper having been mislaid) as follows:

"Please to explain the principles of Morse's and of Bain's machines involved in this controversy, models of which are before this court; beginning with Bain's."

Dr. Page. I have already explained the motive power employed in this machine. The *modus operandi* is simply this. If a galvanic battery is supposed to be in connection with the machine, (and we must suppose this in order to explain how it operates,) and the chemically prepared paper is in its place, and all things are prepared for operating, whenever, by the manipulation of the hand, or by other means, the galvanic current is made to pass through the chemically prepared paper, it makes a stain or mark upon the paper. A succession of such marks

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are produced to mark telegraphic signs on the prepared paper. The paper is made to travel between two points in contact with it, that the galvanic current may pass through the paper from point to point, in its successive portions, as they pass along. I think this comprises the modus operandi, in the main, of this machine.

Chief Justice. How is the galvanic current produced? What collects the electricity to produce a motive power?

Dr. Page. It is obtained from an ordinary galvanic battery.

Chief Justice. Have you any other question to put to the witness?

Mr. Kendall. Under your honor's question it seems appropriate that the witness should describe the machinery, from the galvanic battery, through, to the result.

Mr. Gillet. He has explained all that.

Chief Justice. Are you speaking of Bain's?

Mr. Kendall. No; of Morse's.

Mr. Gillet. Unless care is taken we shall get the two mixed up so that we can not tell one from the other.

Mr. Kendall. That is precisely the difficulty!

[A general smile was excited by this reply.]

Dr. Page. The motive power in Morse's machine is a descending weight; the hand also is to be employed to manipulate the machine. By the operation of the hand the galvanic circuit is made to pass through chemically prepared paper placed between two conducting points. When the current passes through the paper, by its chemical action, it makes a mark or stain upon the paper. In order that a succession of marks may be made, to be used for telegraphic purposes, the paper is made to travel by clock work, or other machinery, between the two conducting points.

Mr. Gillet. I wish to inquire of the court (and I mention it now, that the opposite counsel may have an opportunity to object, and I am not confident that the inquiry is a proper one) whether a description of this machine of Mr. Morse's has not been in a certain report made to the Commissioner of Patents, which report forms the ground of the Commissioner's decision in this case; and whether the views given in that report are not the views of this examiner?

Mr. Kendall. I know nothing of the facts; but I object to the question.

Mr. Gillet. If we may not ask the witness whether he is the author of the paper submitted here as the decision of the Commissioner, we claim to read that decision, and to contrast it with the testimony of the witness given here. What he now states is candid; it is perfectly fair; and such testimony as we expected from a gentleman of his character, if he was confined to the point; but we wish it placed on record whether he was or was not the author of that report.

Chief Justice. I do not think it would be a proper question. The examiner is made a witness here by the law; and it seems the object of the question to discredit his testimony. I think this cannot with propriety be done.

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Mr. Gillet. That was my apprehension, and if the court will allow me, I wish here to say, in explanation, (and I do so because some persons have been under the impression that I assailed the book put forth by the Commissioner as Information to Inventors and Patentees,) that I had not the least intention of casting any imputation on that book, or on the Commissioner in relation to it. When I said it had been altered in view, probably, of this case, it was mere matter of inference from what I supposed to be the fact, that the book had appeared, formerly, with a certain clause in it, which was afterwards erased by the stroke of a pen. But I am told by Dr. Page that that erasure had been made before this case arose. No man who knows Mr. Burke as well as I do would suppose, for a moment, that he would act otherwise than as a high-minded and honorable man. All we claim is to review and correct his decisions.

Mr. Kendall here resumed his argument:

I do not know whether the remarks made on the other side as to the details of Morse's and Bain's invention are considered by your honor as having any thing to do with the question. It is, however, proper that I should take some notice of them; and, in so doing, I shall confine myself to a very narrow compass.

The opposite counsel undertook to point out the differences between Morse's and Bain's machines, (a thing which he would not let the witness do,) and in stating those differences he said that one point in which Bain's differed from Morse's was, in having a "stylus," which was kept in contact with the paper; and he claimed this stylus as Bain's invention.

Chief Justice. Was not that in evidence before the Commissioner?

Mr. Kendall. Yes; but if it was, "*stylus*" is but another name for a pen. Names are nothing; but things are every thing. Now, what is this "stylus?" It is only a piece of wire through which the galvanic current passes. Bane is not the inventor of it. But if he was, it is one of Morse's improvements that he dispenses with that.

Mr. K. was here about to quote Mr. Morse's specification to show this, but he was interrupted by

Mr. Lawrence. Morse does not dispense with it; but, on the contrary, he claims it as a part of his invention. He calls it "a metallic point, or type."

Mr. Kendall. Yes; in his caveat he speaks in this language: "When this metallic point or type is pressed on the paper," &c. Here is the metallic point; and it is somewhere else called "a pen." Bain calls it a "stylus;" but names do not alter things. A man cannot make a metallic point or pen a different thing by calling it a "stylus."

Young Morse, in his testimony says, that he saw his father use this very thing. He there calls it "the pen." (Mr. K. here quoted the testimony of Charles Morse.) He calls it the pen, but it is plainly the "stylus" that the counsel talked about. The "pen," of which the witness speaks, he says, was "constantly in contact with the paper," precisely as Bain's "stylus" is, and when the galvanic current came it

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made a mark. So it is plain Bain was not the inventor. The point is of little consequence. Here, however, is proof that the same thing was used before his application.

But the counsel reminded your honor that in this stylus of Bain's, the end or point of the wire was decomposed by use, so that the wire had from time to time to be renewed; and this he represented as one of its excellencies and of its superiority to Morse's little wheel.

Why, your honor, this, instead of a merit, is, on the contrary, a strong objection to the stylus; and hence Morse has combined a mode to avoid the use of it. For this steel point he substitutes a small platina roller, which does not dissolve like the metal point. Morse's wheel is, therefore, an improvement both on his own former method and on Bain's too. The difficulty in Bain's is, that the little wire is used up almost as fast as it can be put in.

There is, besides, another objection to this stylus. I saw Bain's machine in operation when he first presented it; and I saw then his stylus applied to the surface of the paper. He said that by the use of his machine he could write a thousand words in a minute; but before he had actually written a hundred words, his "stylus" tore a long gash in the paper, and the machine had to stop till this could be remedied. But Morse has obviated that difficulty completely; instead of passing the paper under a sharp steel point that may tear it to pieces, he causes it to pass under a smooth platina roller, or little wheel, which cannot, by possibility, catch in the paper or tear it.

So, as to these points of difference, Bain has obtained no advantage. He did not invent the stylus. He invented the *name*, perhaps, (and for the name he may, perhaps, get a patent,) but the thing was already used throughout christendom.

And now as to the principles of these machines. Taking Professor Page's testimony, and the machines themselves as here exhibited, let us consider what are the "principles of the machines." They both make use of a galvanic battery and galvanic circuit; they both use a line of conductors, and in precisely the same way; both employ the hand, as, in part, the motive power; both use a weight as a motive power, in part, to move the paper; both propose to use a key to break the circuit, (though Bain describes an additional mode, and Morse might have described half a dozen;) both bring the paper between metallic points which form part of the circuit; both bring the paper to move between two points, and thus to receive certain marks; both use galvanism to make those marks, and both produce dots and marks as the result of the whole operation.

Now, most obviously and undeniably the motive powers used by both are precisely the same, viz., the hand, a weight, and galvanism. In all essential parts they are alike in the modus operandi, viz., in the use of a battery, of a galvanic circuit, and opening and closing the circuit. So the mode of bringing the paper into the circuit that it may receive the marks is substantially the same in both. And, finally, the results are precisely the same.

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I come, then, to this conclusion, as the power employed, the machinery used, and the result produced, are the same in both machines, the "principles" of the machines are the same.

I am reminded by my colleague that I omitted one additional item in which they are alike, and that is, in the employment of chemically prepared paper. I should not have forgotten this, as it forms one essential point of their similarity.

Machines are not made different in principle by a different combination of means to produce the same result. They may differ in these, and yet be substantially the same. Morse's arrangement is a perfectly simple one; his machine shows the "principles" of its construction and use without any trouble; they can be understood with the utmost ease either from his drawing or his model. But the other machine requires some trouble to go through all its details, and rightly to understand its mode of operation. The readiest way to compare these principles, will be to take the operation of Bain's as exhibited by your honor in an up-stairs room of this building, and then the operation of Morse's as it was here simply, and yet perfectly presented before you.

But now to revert to a point I made early in this argument. The second reason in support of the present appeal.

"There is, in fact, no real and substantial interference between the two applications." "The Commissioner should so have decided, and granted Bain the patent for which he asked." If this is true (and the opposite party are not at liberty to deny its truth, for they have given it to this court as one reason of their appeal, and according to them it must be taken as true) then why do they object to Morse's obtaining his patent? The question of priority of invention can arise only when two applications for patent interfere. If the two inventions do not interfere, they may both be patented, provided they are patentable. It is only when there is an interference between them that the question of priority can be raised. Then I lay down this proposition, there is now no question before your honor as to the right of Mr. Morse to a patent in this case. The admission by the other side throws the question of priority out of the case. In stating that there is no interference, they necessarily admit that, as to the point of priority, there is nothing to contend about. It is they who come here; they who brought us here. But why, if there is no interference? Why, if they do not claim that their invention interferes with Bain's, or Bain's with theirs? Then Morse's right to a patent, so far as the question of priority is concerned, is admitted; and the question of priority is, as I have shown, the only question to be decided by you.

All, then, that is left for your honor's decision is, whether Bain is entitled to a patent on the question of priority. Bain, in saying that his claim does not interfere with Morse's, does not contest Morse's priority. Now, if the parties had taken that position before the Commissioner, we should not now have been here. Unquestionably the office would have given Morse his patent.

But their admission that there is no interference does not relieve

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them from the effect of an interference, if there is one. It is not Morse, but the Patent office that denies them their patent. They admit we are entitled to patent. They have argued all other points against our patent; but on this point they do not contest us. They admit there is no interference. If that is true, why do they not say "we disclaim any part of what Mr. Morse claims," and then take what rightfully belongs to them?

To that we have no objection. But, as to the question of priority, we say that there is no such question in the case, and on this ground Morse is entitled to a patent. There is no other question legally before this court.

Mr. Kendall here closed his argument.

Mr. Lawrence then addressed the court.

The ground on which this appeal is resisted has been so fully and so ably discussed by my associate counsel, that I do not feel as if there was any thing left for me to say. Consequently, it is my purpose to do little more than reiterate some of the positions he has taken, and in doing this I shall be very brief. I shall confine myself chiefly to the questions of law which are involved in the case, to a succinct description of what is properly before your honor as an appellate judge in cases of this description.

And, first, I inquire what is the appellate jurisdiction with which your honor is clothed by the statute? I say it is confined expressly to the single question of "priority of right or of invention." I use these words because they are the words used in the statute, and because they are significant words, and have an important bearing on the true construction of a part of the Patent law.

And first. Is this a case of interference? Now, I humbly conceive that, on the law of 1836, regulating the manner in which appeals may be taken from decisions of the Commissioner of Patents, that is a question not open to your honor's decision.

What is the law? In the 8th section it is declared: "That, whenever an application shall be made for a patent, which, *in the opinion of the Commissioner*, would interfere with any other patent for which an application may be pending, or with any unexpired patent which shall have been granted, it shall be the duty of the Commissioner to give notice thereof to such applicants or patentees as the case may be; and, if either shall be dissatisfied with the decision of the Commissioner, *on the question* of priority of right or of invention, on a hearing thereof, he may appeal from such decision," &c.

Now, that embraces the whole matter, so far as relates to interfering applications for patent. And I say it is the opinion of the Commissioner which is to determine the question of interference. If, in the conscientious discharge of his duty, he arrives at the conclusion that there is an interference, he is then to notify the parties; and, if either is dissatisfied, he may take an appeal. Now, as my colleague has very properly argued, if there is no interference, then there is no question of

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priority to be settled; because the two inventions are distinct and independent, and there is no priority to prevent a patent from issuing. Priority, in law, means priority as to the same invention. If, then, as they say, there is no interference, then we say there is no question of priority to be decided.

But your honor has nothing to do with the question of interference. That, according to this law, is a question for the Commissioner, and for him alone; it rests on his opinion, "which," says the statute, "*in the opinion of the Commissioner*, would interfere with any other patent," &c., then the party may appeal; and, when he has appealed, then the law is just as clear that the only question to be decided is the question of priority. "If either be dissatisfied with the decision of the Commissioner *on the question of priority of right or invention*," he may appeal.

And the additional law of 1839, in the 11th section, after providing that the chief justice of this court may "revise" the decisions of the Commissioner "in a summary way," it directs that "the Commissioner shall also lay before the said judge all the original papers and evidence in the case, together with the grounds of his decision, fully set forth in writing, touching all the points involved in the reasons of appeal, *to which the revision shall be confined*."

We therefore assert this much in regard to the jurisdiction of your honor in questions of entering applications for patent.

1. The fact of interference rests on the opinion of the Commissioner; and, when an interference is declared by him, an appeal may be taken from his decision.

2. The only question for your honor to determine, under the law, is the question of priority of right or invention.

3. The discussion before your honor here, and your revision, is to be confined to the reasons stated in the appeal.

I now proceed to take up and examine the reasons of appeal, and to determine which of them are within your honor's appellate jurisdiction, and which are not.

There are five reasons given; and the first is, that "Morse has not filed sufficient drawings, or deposited a sufficient model of his invention; nor has he described it in such full, clear, and explicit terms, as to enable a person skilled in chemistry, electricity, and mechanics, to construct and use the same to transmit intelligence. The Commissioner erred in not so declaring. He should have excluded Morse's application for these reasons, and then there would have been no interference with Bain's."

This is a question not within your jurisdiction. Like the question of interference, it is a matter which rests wholly in the duty and province of the Commissioner. It is a matter preliminary to those proceedings on which an interference can be declared. Specifications must, in the nature of things, in the opinion of the Commissioner, be sufficiently clear and precise to enable him to know what the thing is, or certainly he cannot declare that it interferes with another thing. Therefore,

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whatever is sufficient to enable the Commissioner to do this is sufficiently set forth by the applicant.

But I will not discuss this question; it is not a question for your honor to decide, because it does not touch the question of priority of right or invention. It is a matter merely incidental, amendable, and entirely preliminary. So much of the reasons of appeal must be thrown aside by your honor, because it is not involved in the question of priority.

The second reason given is thus stated: "There is, in fact, no real and substantial interference between the two applications. The Commissioner should so have decided, and granted Bain the patent for which he asked."

This reason I have already answered. That is not the question of priority; it is a matter wholly preliminary, and rests in the bosom of the Commissioner.

The third ground is, that "the Commissioner should have declared the true date of Bain's patent to be the one appearing on its face, to wit, December 12th, 1846, which was before Morse's application or caveat."

That question I admit to be properly before your honor, and I shall discuss it presently.

The fourth reason declares that "the Commissioner erred in allowing Morse to go into proof of his invention prior to his caveat and application, and at the same time refusing to allow Bain to make proof of his discovery before the date of his English patent."

This, also, is a question rightfully before your honor.

The fifth reason given is, "the testimony offered by Bain to show priority of invention ought to have been received, as well as that which was intended to show Morse's invention not one of practical utility, or identical with his own."

As to this last position, the Commissioner denies that any testimony was refused by him. And, in the second place, no exception was taken by the appellant to the persons introduced as witnesses, or to the testimony offered. So that on this point there is nothing for your honor to decide.

If I am correct, there are, then, but two questions before your honor in this appeal.

The first is, whether the Commissioner erred in assigning the true date to Bain's English patent?

The second is, whether the Commissioner erred in refusing leave to Bain to go back of his English patent to prove priority of invention, while he allowed Morse to go behind the date of his caveat.

On these questions I lay down five propositions, which I think I shall be able fully to establish.

First. Under the law of 1836, a man may be the original inventor of a machine or other thing, though he be not the first in point of time, or the first as against the whole world. And on this point I shall refer to the authorities adduced by the learned Solicitor on the opposite side.

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Second. In regard to every American claimant, the act of 1836 requires that he shall not only be an original inventor, but the first in this country.

Third. If he be an original and the first American inventor, he is entitled to a patent, though a foreigner may have invented the same thing before the date of his invention, provided it had not been patented or described in any printed publication before the American application for patent.

Fourth. The great object of the act of 1836 was to secure *bona fides* as to the fact of an American inventor; and the exception made in favor of foreign inventions, that may have been patented or described in any printed publication, was made simply on the ground that such patent, or printed publication, is held to be constructive notice to the American inventor, and to all the world, of the existence of such invention.

Fifth. In view of the American law, the true date of an English patent is the date of the enrolment of the specification.

I now proceed to discuss each of these propositions.

My first position, then, is this :

Under the law of 1836, a man may be the original inventor of a machine or other thing, though he be not the first in point of time, or the first as against the whole world.

The act of 1836 embodied all previous laws in relation to patents which it was deemed necessary to retain; all the rest were repealed; and it has been thenceforward considered as the Patent law of this country, save so far as it has been modified by subsequent legislation.

The 7th section of this law contains its provisions as to the duty of the Commissioner in issuing patents; it defines when he shall grant them, and in what previous preparation, by the filing of specifications and the deposite of models, and also to whom they shall be granted. Its language is, " and if, on such examination, it shall appear to the Commissioner that the same had been invented or discovered by any other person *in this country* prior to the alleged invention or discovery thereof by the applicant, or that it had been patented or described in any printed publication in this or any foreign country," &c. Now, my construction of this clause of the act is, that the requirement of priority of actual invention is confined to " this country ;" and that it is only in case of a conflict between the claims of two American citizens to an American invention, that the question of priority can arise, or legitimately be entered into.

There is a manifest distinction between an original and the first inventor. Two men may be distinct and independent inventors of the same thing, who never heard of each other's existence; both may be actual inventors—original inventors; and that not only in a philosophical view of the matter, but under the statute.

When two claimants, both Americans, are proved to be, both of them, true and original inventors of the same thing, then, and not till then, the question of actual priority arises. It is only between two American citizens, who stand on the same footing as to originality and

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bona fides, that the question of priority of invention does arise. If you leave out a part of the words of this section, the same meaning is still clear. "And if, on such examination, it shall not appear to the Commissioner that the same had been invented or discovered by any other person in this country prior to the alleged invention or discovery thereof by the applicant, * * * it shall be his duty to issue," &c.

If the question of priority is declared by the law to be between two inventors "in this country," it excludes the idea that the applicant must be the first inventor as against the whole world. If a man in England has invented the same thing as another in this country, but had not patented his invention, nor had it been described in any printed publication, the question of priority could not arise between him and the American inventor, because the law confines the matter of priority to inventors "in this country."

And now as to the next portion of the section. "Or that it had been patented or described in any printed publication in this or any foreign country, or had been in public use or on sale, with the applicant's consent or allowance, prior to the application; if the Commissioner shall deem it sufficiently useful and important, it shall be his duty to issue a patent therefor."

I call your honor's attention in passing to the fact that, according to this clause in the statute, the question as to the utility of the invention to be patented is a question for the Commissioner, and for him alone.

There are here stated three several contingencies under which a patent may be refused. The first is, if it shall appear that the same thing had been previously invented by another person "in this country." The second is, if it shall have been patented or described in a printed publication, whether here or elsewhere. And the third is, if it is already in public use or on sale with the consent of the applicant. Now, when are these last two restrictions to take effect? Prior to the application of the claimant.

Suppose the invention had been patented and described in a printed publication, not before, but after, the application; would that have avoided the patent? Suppose Bain had patented his machine in England *after* the date of Morse's caveat here, would it not have been the duty of the Commissioner to grant a patent to Morse? Certainly. Why? Because he is required by the statute to issue a patent, except in one of the three cases I have mentioned. If the English patent is subsequent to the American application, it does not come within the exceptions named in the law, and a patent must issue. Though the English inventor should show that he had invented the machine fifty years before Morse's application, still Morse must have his patent, because his application is previous to Bain's patent, and the law says nothing about the question of actual priority.

But now let us read the next section, which is supposed by the counsel on the other side to modify what precedes it. "But whenever, on such examination, it shall appear to the Commissioner that the applicant was *not* the original and first inventor or discoverer thereof, or that

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any part of that which is claimed as new had before been invented, or discovered, or patented, or described in any printed publication in this or any country, *as aforesaid*," &c. These closing words "as aforesaid" show that the enumeration of cases here is intended only to be the converse of the enumeration in the preceding clause. In the first clause we are told when the patent shall issue; and in the latter when it shall not. The words "as aforesaid" render the meaning perfectly clear. When it says "the applicant was not the original and first inventor thereof," it means the same as the first section means when it says, "had been invented or discovered by any person in this country prior to the alleged invention." Both refer to priority of invention in this country.

Now, if we take the 15th section of the act in connection with this clause, it renders it obvious that this reading of the words is inevitable. The 14th and 15th sections both refer to the evidence which may be given, and the conduct of suits for the infringement of a patent already issued. The law is there prescribing what rule shall be followed in decisions on patents issued.

"The defendant in any such action shall be permitted to plead the general issue, and to give this act and any special matter in evidence, of which notice in writing may have been given to the plaintiff or his attorney thirty days before trial, tending to prove that the description and specification filed by the plaintiff does not contain the whole truth relative to his invention or discovery, or that it contains more than is necessary to produce the described effect; which concealment or addition shall fully appear to have been made for the purpose of deceiving the public; or that the patentee was not the original and first inventor or discoverer of the thing patented, or of a substantial and material part thereof claimed as new; or that it had been described in some public work anterior to the supposed discovery thereof by the patentee, &c.; or that he had surreptitiously or unjustly obtained the patent for that which was in fact invented or discovered by another, &c.; in either of which cases judgment shall be rendered for the defendant, with costs: *Provided, however*, that whenever it shall satisfactorily appear that the patentee, at the time of making his application for the patent, believed himself to be the first inventor or discoverer of the thing patented, the same shall not be void on account of the invention or discovery, or any part thereof, having been before known or used in any foreign country; it not appearing that the same, or any substantial part thereof, had before been patented or described in any printed publication."

Now, does not that sustain my construction of the 7th section? I take it for granted, that the position laid down by the Attorney General of the United States, in his written opinion on file before your honor in this case, must meet the views of every sound lawyer, viz., that the Commissioner cannot be bound to issue a patent which the law, as soon as the question was raised, would declare null and void. Undoubtedly the legislature meant the same principle to govern the Commissioner

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in issuing a patent, which must govern the courts in judging of its validity.

If the Commissioner is bound by law to issue a patent, the courts will be bound by law to sustain it; and where the courts would be bound to quash a patent, if issued, the Commissioner is bound not to issue it. Now, the proviso in this 15th section declares that a man's patent shall not be lost if he *bona fide* believed himself to be the original inventor, notwithstanding any proof that may be adduced of priority of invention by a foreigner, unless the foreigner had patented his invention before, or it had been described in some printed publication.

I say, then, that from a clear and fair interpretation of these two sections of the law taken in connection; from a due consideration of the purpose of the law, and of the sound legal principle that the Commissioner cannot be bound to issue a patent which the courts will declare null, my first proposition is abundantly sustained, viz., that under the law of 1836 a man may be the original inventor of a machine or other thing, though he be not the first in point of time, or the first as regards the whole world.

I will now refer to some of the authorities which were cited by the learned counsel on the opposite side to sustain the contrary view.

Every case cited by him, with the exception of one, was decided prior to the passage of the law of 1836. The one exception is a decision on a patent which had been issued under the old law, viz., under the acts of 1790, 1793, and 1800. I refer to the case of Woodcock *vs.* Parker, 1 Gall., 438. It was cited to sustain the doctrine that an applicant for a patent must be the first inventor as regards all the world.

But, before I examine his case, let me call the attention of your honor to the provisions of the Patent law of 1793. "When any person or persons, being a citizen or citizens of the United States, shall allege that he or they have invented any new or useful art, machine, manufacture, or composition of matter, or any new and useful improvement on any art, machine, manufacture, or composition of matter, *not known or used before the application*," &c. The law was brief, and confined the right of the applicant to a patent to the one condition that the thing to be patented had not been known or used before his application. On that law, with that one requirement, all these decisions which the counsel has cited here are based. The decisions were very proper under that law, but they are wholly inapplicable to the law of 1836.

The case in 1 Gallison, 438, though decided in 1813, was on a patent dated in 1808.

1 Mason, 302, (Bedford *vs.* Hunt,) was decided in 1817.

2 Wash, 342, (Evans *vs.* Weiss,) was in 1809; ibid., 311, (Dawson *vs.* Hollin,) was in 1808.

2 cases in the Patent decisions, No. 40, (Reutgers *vs.* Canowers et al.,] 1 Wash., C. C. R., 168 was in 1804; and (Evans *vs.* Eaton) 1 Peters' C. C. R., 323 and 342, was in 1816.

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1 Story, 590, (Reed *vs.* Cutter,) was decided after 1836, viz., in 1841; but it arose on two patents, the first of which was dated 5 Aug., 1831, and the second 19 Nov., 1833.

Thus it will be seen that every case which has been adduced on the other side, (and such is the learning and research of the able Solicitor that no doubt he has brought forward every case that is to be found,) was decided either prior to the passage of the law of 1836, or else on laws and patents bearing date before that act. The provision of law on which all these decisions were founded was, that the claimant should not obtain patent unless the machine he claimed to have invented had not been known or used before, without limit either as to time or country. The consequence was, that under such a law as that, requiring originality against the whole world, against every corner of the habitable earth, the decisions of the courts could not be otherwise. But the difficulties, the hardships, and the absurdities arising under the law of 1793, had been so long felt and so often brought before the courts, that it was the express purpose of the law of 1836 to secure priority of invention only as between rival conflicting American inventions, and to guard the right of American inventors from the claims of foreigners, unless their alleged inventions had been patented, or described in some printed publication, so as to bring notice of their existence home to the American claimant. I think, therefore, that my first proposition has been fully established.

My second proposition is, that, in regard to every American claimant, the act of 1836 requires that he shall not only be an original inventor, but the first in this country.

The object of the law of 1836, in regard to American citizens, I have already alluded to. I shall therefore pass this point with but few remarks. Its object was to secure to all American citizens that equality of rights which the Constitution guaranties to them, and not, as in England, a monopoly by the mere grace of the Crown. This equality is secured in the fundamental principles of our Government; and Congress, in passing the law, aimed only to provide the means of securing the constitutional right between American inventors, each being an original inventor. The old civil law rule, *qui prior est tempore, potior est jure*, was thus carried out and established as among our own citizens. Each claimant was to go before an American Commissioner of Patents on an equality of rights with every other applicant. Each would then be, under the law and under common sense, and the decisions of the courts, confirmed in all the rights he could justly claim. Between them, the only question could be, which man was really and *bona fide* the first inventor; and I say that the first clause of the 7th section of the law of 1836, which is the only clause that speaks of priority of invention, is confined to a conflict between American citizens, touching an invention made in this country.

My third position is, that, if he be an original and the first American inventor, he is entitled to a patent, though a foreigner may have in-

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vented the same thing before the date of his invention, provided it had not been patented, or described in any printed publication, before the American application for patent.

Suppose a foreigner had invented a useful machine, which, however, was neither patented nor described in any printed publication, but unquestionably discovered before it was ever invented by any American citizen; suppose he had at the time communicated it to his friends, and could prove the priority: if an American should afterwards fall upon the same idea, and should then come to the Patent office here and apply for a patent, could the Commissioner refuse him because his machine had been invented before by the foreigner? That is the question in this case. If he cannot, then Mr. Morse must get his patent. Why may not a patent issue? The law says that the Commissioner must issue a patent in every case of application, unless one of three exceptions stands in the way. But neither of the three exceptions stated in the law exists in such a case as I have supposed, and therefore the American applicant must receive the patent he asks; and my third proposition is true.

My fourth position is, that the great object of the act of 1836 was to secure bona fides as to the fact of an American invention; and the exception made in favor of foreign inventions that may have been patented, or described in any printed publication, was made simply on the ground that such patent or printed publication is held to be constructive notice to the American inventor, and to all the world, of the existence of such invention.

I shall not dwell on this point long. What has been so ably and in so lucid a manner said upon it by my colleague, has illustrated whatever I could advance. I conceive that the American law was enacted for wise, beneficent, and politic purposes. The great object of it was that which is expressed in its caption, viz., "to promote the progress of useful arts;" to hold out to ingenious, scientific, and diligent men some prospect, though distant, of a reward for their labors—some inducement to employ their time in bringing up from the rich mine of their mental endowments what may prove useful to their country. The policy of the American law is very different from that of the law of England, which is that of a bargain between the Government and the inventor, by which it grants him a monopoly that it may get at his secret. (Lord Eldon himself pronounces their patent law to be "a mere bargain.") It was enacted with different views; it was intended to advance different objects. It does not confine its benefits to one class of men and refuse them to men who are equally deserving. Is the merit of an American inventor any less because he happens to have been preceded by another inventor, unknown to him, in a distant part of the world? Is Morse's invention any the less meritorious of reward, supposing Bain to have invented the same thing at the same time in England? Or is Bain's merit the less because Morse thought of the same thing here? Why, then, does the law distinguish between them? It

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does not distinguish between individuals who come with a *bona fide* claim to actual invention, although the same thing may have been discovered in some other land, unless it has previously been patented or described. And why is this exception made? Precisely on the same principle as, when a deed is recorded, the record is held in law to be notice to the whole world that such a deed has been executed. It is a constructive notice which the law has itself provided, and is therefore not to be denied in law. If you plead that you did not know there was such a deed in existence, the law will say to you that it was your duty to know what is matter of public record. Just so as to the patenting and publicly describing of inventions; they are equivalent to the recording of deeds, and are held to be constructive notice to the whole world. There are only two cases where an American claimant can be ousted of his patent, viz., where the same thing had been patented before, or had been already publicly described. Nothing else can deprive him of his right to a patent, unless fraud can be proved.

I consider the language of the 15th section as fully sustaining my views. There are two clauses in it which allude to prior inventions. In the first it is declared that the defendant may plead any special matter in evidence tending to prove "that the patentee was not the original and first inventor or discoverer of the thing patented," "or that it had been described in some public work anterior to the supposed discovery thereof by the patentee, or had been in public use or on sale with the consent and allowance of the patentee before his application for a patent," "in either of which cases judgment shall be rendered for the defendant."

The latter clause says: "That, whenever it shall satisfactorily appear that the patentee, *at the time of making his application* for the patent, believed himself to be the first inventor or discoverer of the thing patented, the same shall not be void on account of the invention or discovery having been before known or used in any foreign country; it not appearing that the same had before been patented or described in any printed publication"

The first clause here alludes to the time of the *discovery*, the latter to the time of the *application*. The words "it not appearing that the same had *before* been patented, &c., mean "before" the date of application, not before his discovery. If he applies before the other has obtained his patent, or before his invention has been described in any printed publication, a patent must issue.

My fifth position is, that, in view of the American law, the true date of an English patent is the date of the enrolment of the specification.

In discussing this question, the English law of patents must be considered in order to ascertain what is the intention of the American law when it uses the word "patented" in reference to patents under the English law.

And I say, in the first place, because the specification of an invention is that which, under the English law, gives notice to the world what the

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invention is, and because it is only by that that the American inventor gets notice of what the English patent contains, therefore the date of the enrolment of the specification is the true date of the patent.

I said that the exceptions specified in our law were made because the patent of an invention, or its description in a printed publication, is held to be constructive notice to the world. If that is the true ground, then that which, in the English law, is equivalent to a notice to the world, is what the American law means when it speaks of a previous "patent" in this or any foreign country. If "patented," here, includes the specification as a part of the patent, (both being recorded in our office at the same time,) and if "patented" in England refers to the time, not of sealing, but of the enrolment of the specification, then it is clear that our law uses the word "patented" in the American sense of the term. How does an English patent, apart from the specification, give notice to the world of the English invention? For this end it is useless; it is imperfect, incomplete, till the enrolment of the specification. The English law makes the specification a part of the patent just as much as our own law does. I have here authorities to show this; and it is, as I said, the specification alone which conveys to the world a knowledge of what the patent contains. In England the patent is inchoate, imperfect, contingent, conditional, until the specification is added. It may be annulled by the specification, if that claims too much, or if it contains nothing that is new. The patent in England is equivalent to a caveat in America. It remains in the archives of the British government, but tells nothing to the world as to the thing patented.

I will here read to the court some cases from Hindmarsh on Patents, a work of high standing in England.

Mr. Lawrence here read from Hindmarsh, p. 156—'9.

The Reporter's notes of what he read are as follows:

The patent itself contains what is called the title.

It does not descend to particularity.

It gives no information as to the nature of the invention, or how it is to be carried into effect.

The patent is good if the specification is filed within six months; if not, it is, *ipso facto*, void.

The object of the proviso which requires a specification to be enrolled is twofold; first, that the public may know what it is they are prohibited from using during the continuance of the patent. (1 Starkie, 201, McFarland *vs.* Price.) And second, that when the patent is expired they may get the full value of the invention.

It is the specification which conveys to the world the knowledge of what the invention is. (Dav. Pt. cases, 316, Harmer *vs.* Blane. Ib. 308, Bovill *vs.* Moore.)

For many purposes the specification is a part of the patent. It is so for all purposes but to show its own consistency with the words of the patent. (8 Term Reports, 105; Hornblower *vs.* Bolton. Barnwall & Creswell.

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The patent and the specification are one muniment.

The specification must cover and support the patent. (Compion *vs.* Bennion.)

The specification must be clear. Studied ambiguity in its language voids the patent. (Davidge's Patent cases. Galloway *vs.* Bleaston.)

Now, from these various but concurring authorities, your honor will perceive that the law in the case is plain, as respects the British courts.

The specification is held to be a part of the patent; and if so, an invention is not "patented" in the eye of the American law, unless the patent is completed, viz., by enrolling the specification. What our legislation designs, when it speaks of a thing's being "patented" in England, is its being completely patented according to the laws of England. There a man may obtain a sealed patent, and yet not complete his specification till six months after. Suppose a man claims to have invented "a new improvement in the use of steam;" he gets a patent for "a new invention in the use of steam;" but unless within six months he files his specification, fully disclosing what his alleged improvement is, his patent is void. If he does this, then his specification becomes a part of his patent; then his improvement may, in the language of our law, be said to have been "patented," and not before.

The Commissioner, in stating the reasons for his decision, has very clearly shown that he is sustained in this view by the best authorities. But this is not all; not only must the specification be enrolled in order to complete the patent, but, more than all, and above all, the enrolment of the specification is indispensable, because it is the only part of the patent which does, what our law requires to be done, viz, give notice to the world of what the patented invention actually is. A patent is issued in England "for an improvement in the use of steam;" what does that convey to us in this country? It is very much like Bain's patent "for an improvement in copying surfaces;" the words convey no definite idea of wherein the improvement consists. And if, when the specification is put on file, it appears that the alleged improvement is not new, the patent falls to the ground notwithstanding its seal.

That which proves more than any thing else that the true date of the patent is the date of the enrolment of the specification, is the fact, here distinctly laid down, that a man who has obtained a "title," or patent, in general terms, may, after the date of his patent and previous to the enrolment of his specification, if he shall invent an improvement on his first idea, *may* introduce that very improvement into his specification, and it shall be held in law to be a part of his patent, notwithstanding it has been invented after the patent was dated and sealed.

I call your honor's attention particularly to this point. It not only shows what could be done, but what the British courts have done, and what has been sustained after it was done.

Mr. Lawrence here cited the cases of Crosby *vs.* Beverly from Godson on Patents, p. 149; also, ibid, p. 63, Barnwall & Creswell; also, Hindmarsh, p. 168; and the same, p. 191, Jones *vs.* Heaton.

We have, then, an exposition of the English construction of the En-

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glish law, viz., that not only is the specification part of the patent, so that the patent is incomplete without it; not only that it is the specification alone which conveys a knowledge of the invention to the world, but that a man may have a patent sealed, and may yet go on inventing further improvements, and put these also into his specification, and they will all be covered by his patent. His "title," or sealed patent, covers and confirms the whole.

Now, let us look and see how their construction will work. An American citizen has invented a machine moved by steam, and applies for a patent. He is told at the office that a similar machine was patented in England on such a day. He asks for the proof of this, and they show him the English patent, dated and sealed, for "an improvement in the use of steam." The American inventor says he can prove that, on the very day after the sealing of that patent, and before the enrolment of the specification, he invented his own machine. After this, the Englishman, who had got his patent, discovers precisely the same thing that the American had discovered. His specification being not yet enrolled, he puts it into his specification, perhaps only a day before the enrolment. He may have invented his improvement *bona fide*, or he may have stolen it from a report of the American invention; admit he invented it. Now, what have we here?

First, a man in England says he has discovered something that is an improvement in the use of steam, and he gets out a patent, or "title," for those words. An American citizen, the very day after, invents an improvement in the use of steam also. Five months after the Englishman hits on the very same thing; and forthwith puts it into his specification in time to get it enrolled, and it becomes a part of his patent, although he did not discover it till five months after the American inventor.

Now, if our law looks only to the date of the sealing, then the American is thrown out of his patent by a foreigner, who did not discover the American's improvement till five months after he did. Can any man believe that that was the intention of our Patent law? Can that have been the deliberate intention of an American Congress, to give a foreigner a space of six months to conjure up an improvement to put into his specification, and thus oust an American inventor of the fruits of his ingenuity and toil? If it was, it is a thing I have yet to learn. Will your honor give our Patent law a construction like this? Will you take the mere date of an inchoate instrument, that bears in its own bosom a condition, showing that it is defeasible and may be declared, *ab initio*, void—an instrument that sets forth nothing, and conveys no notice to the world?

Will this court so construe an American statute, as to declare an English patent to bear date while it is yet inchoate, and thereby exclude from his rights a *bona fide* American inventor? I surely need not refer such a judge as you are to the many cases where a legal instrument, whatever be its date, is made to take effect only from the date of its discovery. Take, for example, an escrow, which is a deed delivered

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to a third party, with condition that, if fulfilled, makes it valid, and if not fulfilled, makes it void. The third party holds it in his hands, but cannot fulfil its condition. That comes very near the case in hand. An English inventor gets an instrument with a date and a seal, but containing a condition by the fulfilment of which it becomes a patent, but by its non-fulfilment a nullity. The two cases are nearly assimilated in principle. The date of an escrow is not the date of its execution, but the time of its delivery; the day of its transmission from the grantor to the grantee, is its date in law. So with an English patent; it conveys nothing till the patentee has fully and truly described his invention and filed his specification.

I think the position I have taken is one which must commend itself to your honor's judgment. The design of the American law is clearly to give a patent to the bona fide American inventor, unless his right to it is affected by actual or constructive notice. If actual notice can be proved, then his application is a fraud; if the notice is constructive, it is held to be given only in two cases, viz., where a previous patent has been granted, or where the same thing has been described in some printed publication. A patent, in the meaning of our law, must manifestly be such an instrument as gives this constructive notice to the world. Surely no invention can be said to have been patented, unless the world, by the patent, has received notice of what the thing invented is. Our law requires the Commissioner to grant a patent for a bona fide invention, unless the same has been patented or publicly described before the application. But how is he to know whether it has been patented or not? Can he tell this from a mere "title," a vague reference, that requires a specification to explain it? Does our law demand of him an impossibility? Does it require the Commissioner to possess *clairvoyance*, enabling him to see what is in an English patent, whether it is there or no? Must he see and know not only what did, but what did not exist? Surely not. It never can require him to take official notice of an English invention as "patented," till it has been fully described.

These remarks dispose, as I apprehend, of the only two reasons of appeal which are rightfully before your honor for decision. I have, I think, fully shown that the only question rightfully before you is the question of priority, and these are the only two reasons stated by the appellant which touch that question.

The law speaks not only of priority of "invention" but also of priority of "right." What does this mean? It contemplates a distinction, or it would not have employed both terms. What can it mean, but that which we have argued to prove, viz., that a man, though not the first inventor in point of time, and so not entitled to claim "priority of invention" as against all the world, may, nevertheless, have priority of "right" as the first *American* inventor.

One other point alone remains; it is in reference to their fourth reason of appeal. It is thus stated:

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"The Commissioner erred in allowing Morse to go into proof of his invention prior to his caveat and application, and at the same time refusing to allow Bain to make proof of his discovery before the date of his English patent."

I have a few things to say in relation to this, because it is virtually included in the preceding reason.

If I am right in saying that an American inventor is not to be brought into competition with a foreign inventor in point of time, unless the foreign invention has been patented, or described in some printed publication, it follows as a corollary, that though Morse had a perfect right to show at what time he made his invention, Bain could not go into a like proof in respect to his, because the actual date of his discovery was not a question before the Commissioner; nor is it a question here. The only question, either before the Commissioner or before this court, is this, was Bain's invention patented or publicly described previous to Morse's application for a patent? These are the only two points your honor is to look at. If Morse's application preceded the consummation of Bain's English patent, the question is disposed of.

I will just add, that in the book of Godson, there is a very clear history given of the progress of the patent laws of England, and what it is that a patent really includes.

Mr. Gillet expressed his hope to be able to close the argument to-morrow. He added that he should be gratified if the Judge would advise the opposite side that he should like to see Mr. Morse's machine in motion.

Mr. Lawrence. I have considered the appeal presented here only as involving a question of law. I did not mean to say, or to imply, that Mr. Morse is not the original and first inventor in point of time. I was discussing the question of law merely, without the least reference to the fact of priority of invention.

The court adjourned to to-morrow, at 10 o'clock.

TUESDAY, *February* 9.

The court was opened at 10 o'clock. Present, Chief Justice Cranch.

Mr. Gillet addressed the court:

After the protracted discussion in which we have now been for several days engaged, I find myself too much fatigued and exhausted to do ample justice to the views I entertain of this case.

I am forcibly struck in contemplating the contrast between the conditions of the respective parties interested in the present appeal. In one of them we see an eminent and highly-honored American citizen, long known to fame as an artist, widely respected as a professor of science, and universally esteemed and celebrated as the introducer of the electro-magnetic telegraph, represented here by a highly talented agent, one who wields the most powerful pen in these United States. A man with "troops of friends" and numerous and powerful supporters in all parts of the Union; whose exertions have been rewarded (and none can rejoice at it more than I do) by the acquisition of an ample

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fortune; a man residing in one of the most beautiful villas in the State of New York, and revelling in all the luxuries which wealth, united with taste, can bestow. Such is the party opposed to us in this cause.

My client, on the other hand, is easily described: he is a poor Scotch clock-maker. He is not an American citizen, but is of a reputable family, and one whose genius and eminent mechanic skill, has taught the lightning not only to speak, but to write, and to draw. If he stands any chance of success against such odds, he must owe it to the inherent right in his cause. Unfortunately, he has, in his absence, employed counsel who know but little of science, and are even but imperfectly conversant with the law applicable to c ses such as the present.

Such are the two parties which now present themselves before this court, claiming that justice, which, happily, is never at your hands sought in vain.

We had hoped that Mr. Morse would have been satisfied with the ample share, both of honor and of profit, which has enured to him from his inventive genius. It might have been expected, that like the hero of Buena Vista, he would have said, in reference to this invention of Electric Telegraphs, "there is glory enough for us all." But, no; he comes here, into an American court, and demands a MONOPOLY. To reply to that demand is my purpose in at present addressing the court.

Objection has been raised by the counsel on the other side to your honor's jurisdiction in this case, save as to the simple point of priority of right or invention. Well, if it were so, I insist that even that limited jurisdiction will allow us to show that Bain was the first who invented the machine for which he asks a patent; and whatever goes to show that their machine is substantially the same with ours, proves that they are not the first discoverers. If I prove that theirs is not the same, then I prove that Bain is the first discoverer; if I show that their machine does not work as Bain's does, then I prove that they did not discover Bain's machine before he discovered it. If I bring forward any thing to show that they are not entitled to a patent, then I show that they are not in court to take Bain's right away from him.

But what is your honor's jurisdiction in the case?

The opposite counsel studiously avoided the provision in the 7th section of the law of 1836, for a temporary board of examiners. That section shows what that board were empowered to do in case of an appeal; it shows that they were empowered to take testimony, and go into an investigation of the whole case. The field was large and open, and that section of the act of 1839 which substitutes your honor for such board, confers on you precisely the same power which that board possessed under the previous law.

The 7th section of the law of 1836 says:

"But when, on such examination, it shall appear to the Commissioner that the applicant was not the original and first inventor or discoverer thereof, or that any part of that which is claimed as new had before been invented, or discovered, or patented, or described in any printed

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publication in this or any foreign country as aforesaid, or that the description is defective, he shall notify the applicant thereof," &c.

That covers the whole ground of our appeal. There is no limitation here. The clause, then, after describing the board of commissioners, to whom the applicant's appeal is to be submitted, goes on to say: "Said board shall be furnished with a certificate of writing of the opinion and decision of the Commissioner, stating the particular grounds of his objection, and the part or parts of the invention which he considers as not entitled to be patented, and the said board shall give reasonable notice to the applicant, as well as the Commissioner, of the time and place of their meeting, that they may have an opportunity of furnishing them with such facts and evidence as they may deem necessary to a just decision; and it shall be the duty of the Commissioner to furnish to the board of examiners such information as he may possess relative to the matter under their consideration." There is no limitation here as to what is to be investigated. The applicant and the Commissioner are to furnish the board with any facts or evidence the board may deem necessary to a just decision of the case. Does your honor find any limitation of jurisdiction here? It then declares: "And on examination and consideration of the matter by such board, it shall be in their power, or of a majority of them, to reverse the decision of the Commissioner, in whole or in part; and their opinion being certified to the Commissioner, he shall be governed thereby in the further proceedings to be had on such application." If the sole question before them was on the priority of invention, could they reverse the decision of the Commissioner?

In the 8th section, where an appeal is allowed to the same board, the law does provide for an investigation as to priority of right or of invention, and for ascertaining whether either of the applicants is entitled to patent; and it contemplates the case that neither may turn out to have been the first inventor, and then neither is to get a patent. If, then, I could show that Morse's claim had before been covered by another, I should show that Morse is not entitled to patent.

Now, when we come to look at the 11th section of the act of 1839, it transfers to your honor all the power which was before conferred on the board of commissioners. The law says:

"That in cases where an appeal is now allowed by law from the decision of the Commissioner of Patents to a board of examiners, provided for in the 7th section of the act to which this is additional, the party, instead thereof, shall have a right to appeal to the chief justice of the district court of the United States for the District of Columbia, by giving notice, &c.

"The Commissioner shall also lay before the said judge *all* the original papers and evidence in the case, together with the grounds of his decision, &c., touching *all* the points involved by the reasons of appeal. This word "all" confers on your honor all the powers which the board of commissioners had under the seventh as well as the eighth section of the law of 1836. The whole case is open to you without limita-

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tion, save such as may be in this 11th section. Why must the Commissioner lay before your honor *all* the papers that were before him, if only one point is within your jurisdiction? If you are confined solely and exclusively to the question of priority, why must all the papers in the entire case come before you?

"The Commissioner shall also lay before the said judge *all* the original papers and evidence in the case, together with the grounds of his decision fully set forth in writing, touching *all* the points involved by the reasons of appeal, to which the revision shall be confined;" these words "to which the revision shall be confined," contain the only limitation in the case; whether they refer to the reason of appeal only, or to the decision as well as the reasons in support of it, is not certain; I take it for granted that your honor has decided that they refer to the reasons of appeal; and that is the only limit to your jurisdiction. I say, then, that the whole case is open to the facts here disclosed, unless there be a limitation from some failure of the appellant in omitting to file reasons of appeal sufficiently broad. Whoever reads the reasons as here set forth, must see that the writer is not very conversant with the subject, and therefore deals in generals to a very great extent. There is no limit to the reasons which can be based on the evidence produced, with one or two exceptions.

I proceed, therefore, on the assumption that your honor's jurisdiction extends to every question contained in the reasons of appeal.

It is assumed, and the assumption is confirmed by the Commissioner's reasons for his decision, and the position is not controverted here, that Bain's invention was patentable. I take that as a matter settled; and now I will proceed to discuss Morse's claims to patent.

What object Professor Morse had in view in drawing into this case a history of his voyage on board the packet ship Sully from France, is not disclosed; but by that history he has completely defeated his object, if it was to show that he invented this machine in 1834, and to get a patent for it on that ground. The statute requires that the invention, to be patented, must have been made "in this country." Mr. Morse's invention was made, not in this country, but at sea. He cannot controvert that.

[Mr. Morse. Yes, but in an American bottom.]

So that, on his own showing, the invention was not made by an American citizen "in this country;" and, therefore, he is not entitled to the advantages of an inventor in this country. He has chosen his own position, and must adhere to it; and it turns out, that his anxiety to antedate his discovery is the means of defeating the pretensions it was intended to secure.

If, however, he assumes that this machine was not discovered at that time, then he must fall back on what our law says is the date of an invention, viz., the time when it was perfected; and, if he falls on that, he is like to continue falling; for his invention is not perfected to this hour, nor can his machine be used.

The counsel of Mr. Morse claimed, the other day, that a caveat was

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But if what they attempt to maintain be true, then an inventor who files a caveat may spend a whole year in experiments on his invention, and will not be bound to make application for his patent even then.

I have here some authorities on this matter of caveating, which I wish to read from. It is a work published by Kingsley and Pierson, in New York, in 1848. I read from page 62.

[The reporter's notes on his quotations are as follows:

Caveats, not a short, cheap, and imperfect patent, as too often supposed.

Not the slightest protection whatever.

Caveats, when experiments are going on, and are somewhat public.

Caveat is record of date.

Few inventors who cannot go behind a caveat.]

Mr. Gillet proceeded. But I have higher authority than this; authority which these gentlemen will not and cannot dispute. It is the authority of a gentleman infinitely more learned in the law than I can pretend to be; a lawyer of old and established reputation; a gentleman who has long practised before your honor with great advantage to himself and to his clients, and who never touches any legal subject which he does not illustrate with great power and clearness of reasoning. Among the papers laid before your honor, there is a written paper prepared by the distinguished gentleman who addressed your honor yesterday on the other side. I refer to Mr. Lawrence. [This reference produced a general smile: the paper referred to having been submitted by Mr. Lawrence when formerly acting as counsel for Mr. Bain.]

In this paper Mr. Gillet noticed, among others, the following points:

"The immediate question at issue is, which of the parties is the first and original inventor of the subject-matter in dispute.

"From 1832 to 1835, Morse had been experimenting in chemicals without the production of any practical result. He had a mere conception—an intellectual idea.

"Young Morse swears, the conception or idea of his father was not perfected in 1846.

"There are few instances in which a caveat is useful; one is, when the invention is still undergoing experiment, and the experiment has to be made public.

"The filing of Morse's caveat is in itself evidence of the incompleteness of his invention at that time. If it was complete, the law supposed him ready for his patent.

"In the preamble of his specification Morse says, that the idea of marking telegraphic signs by the decomposition of certain salts, was soon after suspended in his mind by another method at that time conceived, and admits that it is only recently that he recurred to his old idea, for the purpose of completing the invention.

"The period referred to for testing the novelty of the invention is not the date of the application for patent, but the date of the invention. In the United States the law supposes an inventor to have a right to patent at the time of the invention.

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"A science is not patentable, nor a scientific axiom, or abstract truth.

"An intended invention is not patentable. A party cannot anticipate protection before he is entitled to it by practical accomplishment.

"It is not enough that it is practicable or possible; it must be something which has been actually done or produced.—Story, in Earl vs. Sawyer, 4 Mason, 1.

"In deciding the question of priority of invention, the question of priority is not limited to mere conception, but to the invention as described by Judge Story, as above.

"Mr. Morse cannot go behind the date of his caveat; up to that time he has shown nothing but a mere conception, or imagination, or thought; and even to this he had but 'recently' turned his attention, when actually applying for patent.

"I cannot discover, from Morse's specification, the extent of his application; whether or not he claims a patent for the composition of matter or not; he does claim the use of the single circuit.

"The law does not require that the invention, previously patented, should be the same as the subsequent one. It is sufficient if the distinguishing characteristics are the same.

"Had no application been made for a patent by Bain, and had there been no alleged interference, Morse is not entitled to a patent for any of the alleged inventions in his specification.

"Morse's specification is not in accordance with the requirements of the law.

"If he had obtained a patent, and he had sued for its infringement, his patent would have been declared void, owing to the defects of his specification and the non-compliance with the statute.

"The defects need not have arisen from a fraudulent design."

"Morse must be the original inventor as respects the whole world."

Thus, your honor will perceive, among other things, that it is from the highest authority I show that a caveat is just such a thing as I claim it to be.

Now, to make Morse's caveat available to themselves, they claim, here, that a caveat has all the legal force of an application for patent. It cannot be so. The statute declares what an application shall be. The "caveat" is not sworn to; an "application" must be, and the applicant must swear that he believes himself the true and first inventor. A caveat prays for the protection of the inventor's right till he can perfect his invention. Now a caveat can have only the force which the statute gives it, for it is the creature of the statute. If it is not made a part of the application by law, it cannot have much effect. But in that part of the law which provides for an application for patent, there is not even an allusion to a caveat. If, then, the law does not consider a caveat as making any part of an application for patent, it follows that Morse's application not having been made till June, 1848, it was more than six months subsequent even to the enrolment of Bain's English specification; and so, according to their own doctrine, Bain's patent was complete before Morse's application here; of course, Morse is not enti-

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tled to patent. But if, as we contend, the true date of Bain's English patent is the date it bears, viz., in December, 1846, then his invention was patented prior even to Morse's caveat, or application, or specification, or model; and Morse can have no shadow of right to the patent he claims, and the Commissioner was bound to refuse it.

But we contend that Morse's application was not complete till 15th August, 1848. In the decision of the Commissioner, it is admitted that, in January, 1848, Morse deposited no model, and that his application was filed in the secret archives of the office, and so remained until after Bain's application for a patent, and it had been decided that Bain was entitled to patent.

We deny, *in toto*, that a paper filed in the secret archives of the Patent office, where it could not be seen or known by any body, can be considered as a legal application for patent according to the statute. Is there any provision in the law which directs that an application for patent shall be filed in the secret archives of the office? The decision of the Commissioner says that it was done according to law. I deny that there is any such law in existence. The Commissioner had no authority for what he did; and I consider the very fact that such a thing was done, and is alleged to have been done according to law, as internal proof that the master mind of the Commissioner himself was not brought to bear in the preparation of the paper presented here as his decision in the case.

We had a long discussion here, the object of which, on the other side, was to show that nobody could tell what was or was not included in an English patent during the interval between the sealing of the patent and the subsequent enrolment of the specification; but I ask, was it not equally impossible for any body to tell what was in Morse's application, so long as it remained covered up in the secret archives of the Patent office? His patent, if it had been granted, would have taken date from the date of his application. Now, if the argument is good against Bain's English patent during the six months allowed him before the enrolment of his specification, is it not equally good against the validity of Morse's application, while it lay concealed in the secret archives? So closely was it concealed that it appears that neither the Commissioner himself nor his clerks knew of its contents till after Bain's application, for the Commissioner had declared Bain entitled to patent. And is it not as important that the public here should know what a patent contains, as it is in England? To this end, the application of Morse could have no more effect while it remained secret, than could Bain's patent before his specification was filed. Morse's application was not of valid effect until the 15th of August, when his model was deposited. If his rule is good as respects English patents, it effectually cuts up his own application. But no court here will apply that rule to England more rigidly than to the United States. There was no valid application made by Morse until after the Commissioner had decided that Bain was entitled to patent. His application was so

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much blank paper in the eye of the law, until his model was produced and deposited at the office, which was not till August, 1848.

I will now proceed to the examination of Morse's specification.

And here I must own myself much indebted to the counsel on the other side for the loan of the volume of Hindmarsh on Patents. It is a work I had never seen before—(a fact that goes to prove how little time I have been able to bestow in preparing myself for arguing this case.) But since I have had the book, I find that, by consulting parts of it which lie between the passages cited to your honor in support of the other side, I get all I want. There are authorities there which cover every point in this appeal.

I here find it laid down that, if a specification be not, in words, so full and clear that a man of ordinary understanding and skill cannot make the machine, the patent for it, though granted, is null.

The place cited here yesterday to show that in England the specification is part and parcel of the patent, has, I find, this important provision in it, viz., that the specification must show its own sufficiency, by proving itself to be in strict conformity with the words of the patent. The patentee must, in his specification, describe the invention mentioned in the patent, and no other. If there is any variation from it in the specification, the patent itself is void.—*Hindmarsh*, 158, 159.

Again, in page 161, it is declared to be clear that the specification must cover and support the patent. The patentee must make a full disclosure of his invention. His account must be full, clear, and intelligible. It must describe every part of his machine with accuracy, and may not be silent as to any part of his invention. If the claim, as stated in his specification, be incorrect, and not in conformity with the patent, it is fatal. Experiments must not be necessary.

Now, with this view of the law of patents, let us take up the specification produced here by Mr. Morse.

Bain's claim, it will be remembered by your honor, is exclusively for combination. Although the stylus used by him in his machine is purely his own invention, I doubt whether he has fully described it as his. He does not, at all events, claim at all to have invented the elements employed in his machine, but only the adaptation of them to produce the result he describes.

Morse, on the other hand, does claim (contrary to what was affirmed by his counsel here yesterday) to be the actual inventor of the machinery employed. He says "I also claim the invention of the machinery as here described."

He does as distinctly claim the invention of the whole machinery used as he claims any thing else. Now, then, if, in this discussion, I am able to show, in his specification, one particle of that machinery which is not new, or is not his invention, then I shall claim that he can have no patent.

According to Hindmarsh, his own authority, if an applicant claims the whole of his machine or discovery as his, and it turns out that any part of it is not his, then this patent, though issued, falls to the ground.

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I trust your honor will look at your notes of what was argued here yesterday, and will remember what the counsel on the other side said. Mr. Kendall told us that the key was old—that that was not the invention either of Morse or of Bain. So I say. Bain does not claim it. He told this court that the galvanic circuit was old—the invention of neither of these parties. He told you that the use of chemically prepared paper for the making of marks by the effect of electricity was an old invention also, and belonged to neither of the claimants. He said that the large metallic drum was an old thing; that neither the roller, nor the little wheel, nor the stylus, was new. As to the stylus, Morse had tried that, and had it in use when his son saw the machine at his chamber; that it proved insufficient, and he threw it away.

He told us, further, that the clock work was not new. All this your honor will distinctly remember; and if you do, your legal knowledge will at once convince you that to Morse's claim admissions like these are more fatal than the cholera, for they are certain death. Morse claims to be the inventor of the machinery he employs; his counsel, speaking for him and his presence, admit that he is not. Look at his machine. Is the hammer and anvil Morse's invention? Is that cylinder Morse's invention? Is the opening and closing of the circuit Morse's invention? Is that connecting wire? Is that platina disc? Is that series of clock work? I need not go into proof before your honor that all these things have been in existence for years past—that they are all old and well known; and if they are, any one, or all of them, then Morse has not invented them, as he claims, and cannot be entitled to a patent for them.

Had he claimed only their combination we should have conceded that they are, with some material exceptions, the same with those contrivances made use of by Bain. The contest would then be as to their respective combinations of things already known; if the mode of combination were not the same, then there could be no interference; if they were the same, then the contest would be as to priority between them.

Now, they have not pointed out one solitary thing in Morse's machine of which he is the inventor; they have not dared to claim so much as one item of all the "machinery" covered by Morse's claim. The question has not arisen as to what they mean to include by that term "machinery;" perhaps the galvanic circuit is not a part of it. If the circuit was a mere wire, perhaps it might be, just as the bands may be considered part of the running gear in a cotton mill, or as the hopper may be part of the machinery in a grist mill. But there stands his model. Of what does it consist? Of certain clock work, of a large wheel, of a small wheel, of a spring, of a hammer, of a pen, of a battery, and the connection of the battery with the machine. Are not the whole of these parts of the "machinery?" Certainly; undeniably they are. Then he asks a patent for the whole of them as his invention; for he claims to have invented "the machinery employed as aforesaid." He has not limited, he has not specified his claim, as he

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was bound by law to do. He claims "the machinery." Had he specified what parts of the machinery, the grounds of claim would have been narrowed, and possibly he might have got a patent. But will that machine work? Will his description of it enable any man to put that model in motion; or to make one that will go? It is impossible. Will his model, such as it is here produced, go? It is in different pieces—some of them lie there separate from the rest; they, too, are said to belong to the model; but there they lie, wrapped up in separate papers, and in this disjointed condition they have been sent here from the Patent office. Can your honor tell how they are to be used? Yet, this model is required to be an exact representation of the machine in miniature. If it is, then I say that this disjointed, disconnected assemblage of parts makes up no sufficient model. We invited them to set their machine to work; they have not done it; and from this we are authorized to infer that they cannot. We put our machine in motion. Your honor saw it in full action; our machine will work; but will this? We challenged them to put it in motion; but there it stands, and there it is likely to stand.

Much time was taken up here in obtaining the testimony of one of the examiners from the Patent office, in order to get at the principles of their machine; but it was a matter of amusement to me (I do not say it was so to your honor) that, after all this consumption of the time of this court, and of the time of the examiner, to get this testimony, neither of the counsel once alluded to it; and certainly there was not enough of it to enable any man to understand Morse's machine. The description of it by this learned professor reminded me a good deal of the description given by a man on board a steamboat to a boy who inquired of him the principles of the engine: "Why, you see, my boy, they stir up the machinery till they get it to go; and when they have got it a-going, they keep it moving." (Laughter). That is just what we want them to do here.

Your honor sees that model, and those pieces of iron wrapped up in paper. There is nothing here that looks like moving—nothing like this machine's working, of itself, without something more being added to it. There is nothing here to put it in motion; nothing to give an alarm at the end of the circuit. No man, skilled or not skilled, could make the machine from that drawing.

[Mr. Gillet here went through the description as contained in the specification.]

That is all the description he gives; and I say that from it there is not a man living that can make the machine. Is this such a description as Hindmarsh says is necessary, and as the Supreme Court of the United States decided to be necessary in the case 5 Howard, 1? They say the description must be full, clear, exact, and such as it requires no experiments to complete.

But they attempted to complete it by reference to what is outside of the specification, to something which is not here, which is not within the case. But this attempt to piece out their lame description by adopt-

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ing, by reference, what it does not contain, wholly failed; because your honor decided that it did not belong to the case. The applicant talks about certain machinery of his own which has been already patented, but without describing that machinery. He talks about a key, but does not describe what it is. Can your honor make, or have made, a thing called a key which is not described to you? There must be a thumb-piece; a bar nearly balanced; there must be a power to throw it back when depressed; it must be so made as to open and close the circuit at pleasure. Is there any description of such a thing here? "A key": What sort of a key? Is it like the key of a lock? If not, what is it. I say again that, from the description given, no man alive could make his machine if it were patented to-day.

Morse says that his machinery is to mark certain signs already patented. Neither are these in the case. They are not given here. Does your honor know what those signs are? Can you know it by intuition? You certainly cannot from his specification. He says they are signs made by bleaching cloth or paper by means of electrical action. Well, if his former patent was for that, then his invention is patented already, and he can't extend his right by getting a new patent for the same thing. The signals, then, must be something else; and how could any one know how to make them?

But, if the allegation in the specification is true, (as his counsel maintain,) his former patent was for certain dots and lines marked by indentations of the paper. Now can the ingenuity of man make indentations on paper by a small smooth wheel passing over a smooth solid metallic drum? It cannot be done. So that, even if it were in the specification, it is physically impracticable. It never can be done by this machine.

Again: Suppose it is a part of the purpose of this invention to make certain discolorations on the paper in a clear and legible manner. Can it be done by this machine? It cannot. The marks can be made only in an indistinct and blurred manner, not to be relied on. Suppose this little wheel is kept moving on the surface of a large metallic drum. Is it certain it will not slide? Will it not make a blurred uncertain mark? We claim that it will, and we challenged them to put their machine in motion and prove to your honor that it will not; but they did not venture the trial.

Now, take Bain's machine. Here is the stylus—a metallic point, smaller than a common pin. Your honor saw that it makes a clear, clean, distinct mark.

Again, Bain's stylus is of steel or copper; and, as it passes over the paper, the chemicals with which the paper has been saturated decompose its point. There is a constant abrasion of the point of the stylus. By combining with the chemicals in the prepared paper, it makes an indelible ink, which stains the paper in a manner forever permanent.

But Morse's small wheel, being of platina, is not affected by the chemicals, and does not combine with them at all.

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The proof that the metal of the stylus combines with the chemically prepared paper, is found in the fact, that when the stylus is made of steel, the marks are of a blue black; when it is made of copper, they are dark brown; and they are as durable as letters written with the ink that your honor employs, on your table.

This is what Morse's counsel said he tried and threw away. Bain continues to use it, and finds it highly useful. The admission of the counsel, that Morse, after trying the stylus, threw it away, is fatal to his cause. For, if the pen used by Morse in his experiments, was the same with Bain's, it cannot be the same now; for what he tried then he threw away as useless, and substituted a different thing. He cannot admit with one breath, that he rejected a thing and threw it away, and then, with the next, claim to retain it, and ask a patent for it.

They have, thus, by their voluntary admission, established the position that the two machines are not identical; but if the whole invention claimed be a combination, and there be a single thing in the combination which is not the same in both, then the combination is not the same, and there is no interference.

On the question of the defectiveness of Morse's specification, I will here quote from the same high and learned authority to which I have already once referred your honor.

[Mr. Gillet here read several of the points quoted in a previous part of this report.]

The grandest argument, made by this same learned authority yesterday, seems to be, that Morse had a right to patent an effect, irrespective of the means used to produce it; and that if one man had discovered means that produced that effect, no other man could employ other machinery to accomplish the same purpose. This position is distinctly assumed in the Commissioner's reasons of decision. We deny it, utterly. Hindmarsh, Godson, Story, Washington, and other authorities of the like weight, all explicitly declare, in repeated decisions, that an effect cannot be patented; and until the great logical powers of the eminent counsel, to whose written opinions I have more than once alluded, shall convince your honor that these lights of the law are all in error, I presume your honor will so hold, and so decide. That a particular mode of producing a given effect is patentable, none will deny; but that the effect is, none will successfully maintain. The Patent law of this country declares, that if a man has discovered a new mode of accomplishing a useful result, he may obtain a patent to secure his right; but a man can't get a patent to monopolize the making of nails, or making shingles, or the plaining of boards. Morse has no right to control all the possible telegraphic alphabets in the world. If he has devised a certain system of dots, lines, and spaces, in which one dot means A, two dots mean B, and so forth; others may use other combinations of like dots, lines, and spaces, in which one dot shall mean Z, two dots Y, three dots X, &c. Unless this is admitted, the absurdity will follow, that in the matter of conveying intelligence by telegraph all the rest of the world must stand stock still for fourteen years, and do no-

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thing. All the ingenuity, skill, and science of men must lie paralyzed; dare not stir or act, because Professor Morse has invented one particular mode of making telegraphic signs. Such is not the law of the land. The law aims not at crushing and prohibiting, but at eliciting and encouraging, competition in discovery. If one can do a useful thing in one way, secure and reward his invention; but do not forbid another man from finding out how to do the same thing in a different way. He has the right, and the law will secure it to him.

What is Morse's first claim? The exclusive use of the single galvanic circuit; to control an agent which has been known for the last half century, to engross and monopolize it, so that no other man can make use of the single circuit for fourteen years.

True, his counsel say it is to use it in a particular way; but that is not the true interpretation of the claim; it means that one particular thing now before you; but if he obtains his patent, it will mean quite another thing to the public. If, however, his claim is to be narrowed down, so that the single circuit is to be claimed only as a combination, and limited to this one thing—if he is to use it only in one manner—then we have no objection to it. But the particular way in which he is to use it must be made perfectly clear and certain, and set forth fully in his specification, drawings, and model; we claim that he has not shown that he can use the single circuit in the particular manner which he claims. We aver, that neither he, nor any other man, can use it in the way he describes.

In preparing ourselves for this cause, we have been not a little embarrassed in ascertaining what the controversy really was. It is not clear from the Commissioner's decision. We sought to relieve the Commissioner from the responsibility of the details of his decision against us, by asking Dr. Page who the author of that paper was. But the opposite side chose to relieve their witness from disclosing that fact. Had it been admitted that the author of that decision was the witness himself, we should have quoted it against his testimony here. As it is, we shall quote the Commissioner against the witness. I wish to show that, in the controversy before the Commissioner, different positions were taken from what are assumed now.

[Mr. Gillet here quoted from the Commissioner's decision.]

We have to read over many pages of this paper before we can get at what the controversy really is. The decision says, that what is new in Morse's machine is not the single circuit; that it is old; and it is not the electrical current used to make marks on chemically prepared paper; that is not patentable. If so, then Morse has nothing to claim. The Commissioner makes a decision that cuts him off. Mr. Kendall tried to show that they have a right to patent both the single circuit and the chemically prepared paper for telegraphic marks. But that was not a question before the Commissioner. He said that could not be patented.

After farther quoting the decision, Mr. Gillet proceeded.

The question before the Commissioner seems to have been respect-

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ing telegraphic rapidity. Bain does claim rapidity in telegraphing. The decision says it is claimed by both; but it is not in Morse's application; not a word of such a claim is to be found there.

The Commissioner says it clearly appears the two inventions are identical. We contend that it does not appear, and that they are not identical.

And now one word as to the reasons of decision. We do not complain of their course in regard to us in that matter. But the decision was made in October, 1848; yet, in assigning the reasons for his decision, the Commissioner sustains his argument by facts which took place in December afterwards. He goes out of the record into what was then futurity for his facts. This I consider a convincing proof that the clear, honest, straightforward mind of the Commissioner was not employed in the preparation of that paper. And I observe, in passing, that the fact itself, that the future is drawn in to help the argument, shows clearly that it was necessary for their position to go there to find something to sustain it.

In the reasons of decision, it is denied that the Commissioner ruled out any testimony offered by Bain. In our reasons of appeal, I quote what it was offered to introduce, and the fact I state is not denied. I hold that the offer there made by Bain was an offer to introduce testimony—an offer which was not allowed, nor noticed in any way; therefore I say it was ruled out.

We said that Bain's patent of 1843 should have been admitted, with a view to prove that the material thing in Bain's invention had been patented as long before as that date. In his decision the Commissioner assumed that the invention patented in 1843 and that patented in 1846 are not alike. He assumed this; but he never read a line from Bain's application in 1843, nor has he shown the drawings accompanying it. He has not attempted to show wherein the two things patented differed from each other. The fact of the case is, that the only difference between them is, that the patent of 1846 covered more ground than the patent of 1843.

What do we find in the patent of 1843? The long circuit, with the earth forming a part; the chemical paper; the key; the pen; machinery to make marks. And these are the things now in controversy. The patent of 1846 contained, it is true, other things beside these; but it is conceded that the key, the pen, the long circuit, the chemical paper, the machinery to make marks, are all elements now involved in controversy here. All this is plain and evident. You see them all in the drawings accompanying his patent of 1843. That patent purports to be dated on the 1st February, 1843.

But they say the date on the face of the patent is not its date in law; and they instance the case of an escrow, which has its true date in law from the date of its delivery only, and not from the date on its face. It is true that, for some purposes, not for every purpose, the legal date is the date of delivery; but, for the great mass of purposes for which legal instruments are executed, the date in law is the date on the face of the

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instrument. We claim that, on that point, each country makes laws for itself. If we choose to make a law that an English patent shall be held to be dated from the time of the enrolment of the specification, no doubt the Legislature has power to do so; but, till the Legislature has changed the law, the Judiciary cannot change it. Now, what is the law in England? Their law says that the patent shall run for fourteen years from its date. Now, when do these fourteen years commence?—from the date of the enrolment only, or from the date of the patent? From the date of the patent. Now, if they are right, and the patent is no patent till the specification is enrolled, and that enrolment may take place six months after the date of the patent, then the fourteen years, being reckoned from a period six months later than the patent, will extend six months beyond the period for which the patent was granted. Will your honor decide that that is the law of England? If it is, why have they no authority to show for it?

That the specification is highly important we admit. But that is not the question. The question is, did the British Government mean that a patent shall run from its date, or from the time of enrolling the specification? Are we to revise their laws? To adopt the construction contended for would be to give Bain six months longer time here than in England. In England his privilege runs from the date of his patent; but here it will run six months longer.

Great stress was laid on the question, how is the Commissioner of our Patent office to know what is contained in an English patent? In some cases he may not. If a patent comes before him without such a description as will give him that knowledge, the question may arise. If it is a sufficient description, he can act upon it; if not, he can pronounce it insufficient, and refuse to notice it. That does not change the fact; it does not prove that a patent is not to run from its date.

But it is argued that great injustice may be done by allowing a foreigner to come here, in the interval between the issuing of his patent and the filing of his specification, and pirate our inventions and improvements, put them in his specification, and then bring his English patent to shut out the American bona fide inventor from the just reward of his genius. Admit it; yet, we say, that there is precisely the same danger that we may pirate English inventions as they may American. An American can go there in the same interval, steal their invention, get it patented here, and when the British inventor applies for his patent here, he is cut out. The danger is as large on one side as on the other. They get nothing by this objection.

But if an American has pirated an invention, and put it into a British patent, what will follow? The Commissioner will not set to work to investigate whether his patent is fraudulent or not; he will send him to the courts. By examining our statute we find that the word "date" is used several times; but it never speaks of "enrolment." Nor can it be made to mean enrolment, without a most violent and forced construction. The Commissioner himself tells us, in his own report to Congress, in 1837, that the date of an English patent is the date of its

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sealing. But, in his reasons of decision, he tells us that that item of the report was furnished by an English commissioner, and that the English commissioner fell into an error. What is his authority for saying it is an error? Why does he believe so now, but believed differently in 1837? But we have more authority from the Patent office to the same effect. There is a publication now on sale here, published in 1848, which has the same thing in it. It is on sale now, in this city, as a guide to the legal profession. I formerly quoted the regulations of the office when the same thing was said, in substance.

From all these considerations and authorities, taken together, I am satisfied that, according to law, the date of a patent is, as the Commissioner says, the date of its sealing.

But the great point in controversy here is, the right of Bain to go behind the date of his English patent to show priority of invention.

In his decision the Commissioner states that Bain and his counsel, in the proceedings before him, were informed that they could not go behind the date of that patent. This notification barred the introduction of all testimony, unless he had offered, actually, to introduce witnesses, after having received such an admonition.

As a preliminary question, it cannot be denied that the inquiry must first be as to whether Bain was the first inventor as regards the whole world. On that point I cited authorities until your honor stopped me. That a number of the highest authorities in this country are full to that point cannot be disputed; but the answer is, that all these decisions were given on cases prior to the act of 1836; and then, with very great convenience to their side of the question, they assumed, that, in this respect, the act of 1793 and the act of 1836 differed.

In reply to their assumptions, I will prove by the statutes themselves that they are mistaken.

But they did not answer all my authorities, although a list of them was furnished for their use. The authority of Kent, in his Commentaries, and another, of his son, the distinguished judge, have not been adverted to by them at all.

Mr. Lawrence said these authorities were not on the list copied by him.

Mr. Gillet. I referred to 2 Kent's Com., edit. 1848, p. 368. I will read it. If the applicant is not the first inventor as to all the world, he is not entitled to patent.

Mr. Lawrence. That is in the text, and the same authorities are there cited.

Mr. Gillet. Yes; and that is proof that both Judge Kent and his son held the law to stand so at this time; for the Commentaries were revised in 1848 by his son.

And now for the act of 1793. In the third section there is this provision: "That every inventor, before he can receive a patent, shall swear, or affirm, that he does verily believe that he is the true inventor or discoverer of the art, machine, or improvement for which he solicits a patent."

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Now, what says the law of 1836?

"The applicant shall also make oath or affirmation that he does verily believe that he is the original and first inventor or discoverer of the art, machine, composition, or improvement for which he solicits a patent, and that he does not know or believe that the same was ever before known or used."

Where is the difference? Is not the provision substantially the same in both? As to the question in hand, there is no difference whatever. The one requires him to swear that he believes himself to be the "true inventor or discoverer;" the act of 1836 requires him to swear that he believes himself to be "the original and first inventor." Will this variation of the phraseology authorize a different conclusion?

And as to the defences in a suit for infringement. The act of 1793 makes this a good defence, "that the thing thus secured by patent was not originally discovered by the patentee." The act of 1836 makes this a good defence, "that the patentee was not the original and first inventor or discoverer of the thing patented." I think it requires great legal skill and acumen to discriminate between these provisions. No, there is no difference; and the true reason why there are no late decisions to be found in the books is, that the case is so clear that no lawyer of reputation would raise the point.

They assumed that Bain was not entitled to patent if there was an original inventor applying in this country, unless his invention had previously been patented or described in some printed publication.

The counsel told your honor several times that the Commissioner was bound to grant a patent, unless one of three things stood in the way; and these were: 1, that it had previously been patented; 2, or described in a printed publication; 3, or had been in use and on sale, with the permission of the inventor. Now, the learned counsel were mistaken in limiting the obstacles to three. If they had examined the 7th section with due care, they would have found that there are four things to prevent the issuing of a patent. What does it say? "And if, on such examination, it shall not appear to the Commissioner that the same had been invented or discovered by any other person in this country prior to the alleged invention or discovery thereof by the applicant"—that is the first case specified; "or that it had been patented" —that is the second; "or described in any printed publication in this or any foreign country"—that is the third; "or had been in public use or on sale, with the applicant's consent or allowance, prior to the application"—that is the fourth. Here are four excepted cases, in which a patent must be refused; if neither of these four objections exist, the patent must issue. The words left out by both the counsel of Morse are these: "the same had been invented or discovered by any other person in this country prior to the alleged invention or discovery thereof by the applicant." These words they consider as meaning that some American had discovered the thing before the application in question. We hold that they mean if any person had discovered the same thing in this country before the applicant discovered it. The question is,

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whether the thing had been discovered in this country previous to the discovery of the same thing by the applicant. If it had, then the applicant must be refused a patent; and that whether there was a counter applicant or not. But if it had previously been invented in this country, then the first coming must first be served. The drawing in of these words "in this country," creates a discrimination between two foreign claimants, not between a foreign and an American claimant. The law assumes that the Commissioner might know if the thing had been already invented by an American, and in that case he must refuse the patent. This is the protection enjoyed by the American inventor. He cannot lose his patent unless there has been a prior discoverer; he must himself be the first inventor as to all the world. The case supposed by the act is not that the thing had been discovered before the time of application by another, but before it had been invented by him. That is the case in the statute, and that is the question here. That was the question before the Commissioner. But by his arbitrary decision, shutting out the testimony of one applicant, while admitting that of the other, this, the real question in issue, was avoided.

The question now before your honor is, whether Bain's machine had been invented in this country previous to Bain's discovery of it.

And that I am right in this construction of the law is shown by what follows: "But whenever, on such examination, it shall appear to the Commissioner that the applicant was *not* the original and *first inventor* or discoverer thereof"—the first inventor, not in this country only, but the first any where. He is required not to be the original inventor *here*, nor the first inventor *here*, but the original and first inventor any where and every where. The Commissioner's attention was called to the fact—1st, whether the applicant before him was the first and original inventor of the machine; 2, whether the same thing had been patented before; 3, whether it had been publicly described before; and 4, whether it had been publicly used before; and, also, whether it was sufficiently described. There is no other limitation. No word is employed which confines him to the question, whether the original invention was "in this country" or any where else.

And then what says the 8th section? "That whenever an application shall be made for a patent, which, in the opinion of the Commissioner, would interfere with any other patent for which an application may be pending, or with any unexpired patent which shall have been granted, it shall be the duty of the Commissioner to give notice thereof to such applicants or patentees as the case may be; and if either shall be dissatisfied with the decision of the Commissioner *on the question of priority of right or invention*," &c. It does not say with his decision on the priority of invention "in this country;" it says, with his decision "on the question of priority of right or invention," and there it stops.

Then, what is it which the judge is to decide on an appeal? It is the question of priority of right or invention as to all the world. It is not a contest where the two parties claiming alone are concerned; for it may turn out that the invention was made by a third party, before

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either of them, in which case neither of them will be entitled to patent. But if it shall appear that there has been no inventor before them, then he is to decide which of the two is the first inventor.

There is no allusion, either in the latter part of the 7th section, or in the 8th section of the law, to the question whether the applicant is the first inventor in this country. It is not in the statute.

But then they resort to the 15th section, and they say that the Commissioner is not to grant a patent which the courts will immediately set aside. To what does this 15th section of the law refer? It relates to judicial proceedings to be had where one of the litigants claims right under a patent. And the proviso declares that where a patentee obtained his patent *bona fide*, verily believing himself to be the first inventor, his patent is not to be voided; that is one thing, and the defences in a suit for infringement are another, and a very different thing. The proviso is entirely distinct from the body of the section. The proviso declares that if the man got his patent in good faith, you shall let him alone, and not declare his patent void.

But when you go back to the body of the section, you will find that in a suit for infringement the plea of priority of invention may be put in; and if it is proved, then judgment shall go for the defendant, with costs. The patent may stand; but if he was not the first inventor, he cannot get damages for its infringement. This part of the law was not alluded to by the opposite counsel at all. From this, according to the Commissioner's own rule, (in which we heartily concur,) he ought not to issue his patent to one that is not the first inventor, because he cannot recover damages for its infringement. Why grant a patent on which the patentee cannot sustain an action? He may harrass people with suits, but that will not make his patent good. Yet the courts cannot take his patent away, because when he got it he supposed himself to be the original inventor. To give judgment against him in a suit, and to nullify his patent, are two distinct things; and though one of them may not be done, the other may, and on sufficient evidence must be done. One relates to the effect on the patent; the other relates to the rights of parties. If the man is to have judgment go against him, with costs, whenever he sues for infringement, it is of little consequence whether his patent be formally quashed or no. The true question is, whether Bain was the original and first inventor; but that question the Commissioner would not go into. If that be so, then your honor is bound to send the case back to the Commissioner. If you are satisfied that Bain's present invention was substantially in his English patent of 1843, then you will order the patent to issue which he claims. But if that does not appear, then you will send the parties back to the Commissioner to try the question, which of them was the first inventor: unless your honor comes to the conclusion that there is no interference, in which case you will order Bain's patent to issue; and, so far as we are concerned, we are quite willing Morse should get a patent, too; though it is my opinion, that as he has claimed more than he invented, a

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patent cannot issue according to law. He claims to have invented all the machinery he uses; his own counsel openly admit that he did not; and if he even shall get a patent, it will be worth no more in law than so much blank paper; and, according to the Commissioner's own showing, you may not order a patent which the courts will set aside. A provision is made for trying that question in the circuit court.

But we take another position. We say that Morse has not shown that he invented any thing prior to Bain's application or specification.

I shall here take the liberty of once more quoting the high authority to which I have been already so much indebted.

[Mr. Gillett here again read from the written argument of Mr. Lawrence, (when counsel for Bain,) in which he discusses the testimony taken before the Commissioner.]

In addition to this high authority I ask your honor to look at the machine here exhibited by Mr. Morse, his drawing and specification, and compare them with the statement of young Morse, and see whether it is possible to make such a machine as this from his description.

Young Morse says that what he saw at his father's lodgings was "somewhat dissimilar to any thing he had seen before." Now, to know the real amount of this testimony you must know, first, what it is that the witness knew before; and then we must draw on our imagination for the difference between that and Morse's machine; and then, provided we have made the right draft, we may perhaps get at what it was that young Morse did see. All the description he gives of the machine is that it was dissimilar to any thing he had seen before.

He says he saw characters made by "the pen" which ran over the whole of the paper or cloth. Here is no "pen;" here Morse, in his application, speaks of a "point"—his son talks about a "pen;" now a "point" and a "pen" are as different from each other as a hand and a foot. What he describes is as different from Morse's machine as light is different from darkness. The pen he saw was "connected with wires;" here is no such wire. In Morse's machine at one end is a block, at the other end is a hammer and anvil; there is no wire there, or near it.

Mr. Lawrence. The anvil is part of the key.

Mr. Gillet. Not when I was a blacksmith.

Mr. Morse. It is; an essential part of it.

Mr. Gillet. Then he has described a key, a hammer, and an anvil, and they are all one thing. If they all do but make up "the key," why does he say in his specification "k is the key; i is the hammer; h is the anvil?" No, your honor, it is an after-thought; a mere effort to show that this is the same thing young Morse swore to, though his counsel admitted they were not the same. If by "the key" is meant that kind of key, then I say it is not in his specification, or drawing, or model, or claim.

Young Morse says that the paper in his father's study was damp, and had been dipped in a solution; but he does not say what the solution was. Gunpowder and water is "a solution." He testifies that his

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father told him not to say any thing about the experiment he had seen; then it was a mere conception, an idea in his mind, and he was then experimenting upon it; it was an invention as yet incomplete. In January, 1847, he put himself on record in the Patent office as desiring to secure a right until he should have time by experiments to complete his invention. He was now engaged in those experiments preparatory to his application, which was not made till four months after young Morse saw "the pen" and the "damp" paper. Did he make no progress during those four months? And if he was still experimenting, can he say that his invention was then complete? By entering a caveat, he asked for another year to make his invention complete. He is not allowed, here, to stultify himself in that way.

His counsel call the caveat an application; but Morse himself tells the Commissioner that he is not ready to make application for patent, because he is experimenting, and therefore he enters his caveat. Has young Morse sworn to any thing that looks like Bain's machine? Not at all. And if not, then we show that Bain's patent was before even Morse's caveat—for his patent dates in December, 1846, and the caveat in January, 1847. Bain was clearly, then, the first inventor; and if he was, then Morse had not at the date of his application actually invented any thing.

The 4th proposition of the opposite counsel is "that the great object of the act of 1836 was to secure *bona fides* as to the fact of an American invention; and the exception made in favor of foreign inventions that may have been patented or described in any printed publication, was made simply on the ground that such patent or printed publication is held to be constructive notice to the American inventor and to all the world of the existence of such invention."

To this position we make no objection; we go with the gentlemen most heartily. We hold, as they do, that the law has for its object to secure good faith in applicants in the matter of their inventions. That is what we ask, and all we ask. When the law declares that a patent shall be given only to the first inventor, all we claim is, that the law shall be executed in perfect good faith; that the *bona fide* first inventor, come he from where he will, shall get a patent for his invention, unless it has already been patented or publicly described. Then let him go to the circuit court and control the Commissioner. The 16th section of the act of 1836 makes provision for the case. It says, "whenever there shall be two interfering patents, or whenever a patent or application shall have been refused on an adverse decision of a board of examiners, on the ground that the patent applied for would interfere with an unexpired patent previously granted, any person interested in such patent, &c., may have remedy by bill in equity; and the court having cognizance thereof, on notice, &c., may adjudge and declare the patents void in whole or in part, &c.; and may also adjudge that such applicant is entitled, according to the principles and provisions of this act, to have and receive a patent for his invention as specified in his

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claim, or for any part thereof, as the fact of priority of right or invention shall, in any such case, be made to appear."

So the parties are not left without remedy, if there is a difficulty as to a previous patent. They are in no danger of losing their rights. If a patent shall be refused to Morse and granted to Bain, Morse may go to the circuit court and get all reversed, and can control the Commissioner. Now, suppose your honor should allow a patent to Morse; what can be done under it? Bain sets up a machine; Morse sues for infringement; Bain pleads that he and not Morse is the first inventor. On a trial of that kind, will his testimony of invention previous to his patent of 1846 be shut out? Why the very issue there will be, who is the first inventor, the first as to all the world? Will Bain's proof of the priority of his discovery be shut out on trying such an issue? Would your honor rule him out? Why? Why is his testimony to be excluded? Your honor could not so decide; you would be bound to receive all testimony pertinent to the issue.

But the opposite counsel have told you that if Morse proves that he is the "original" inventor, he will succeed in the cause. We deny that. He can succeed only if he is "the original and *first* inventor." The question would be, under the 15th section of the statute, as to the first inventor. Though they should succeed in proving originality, still we deny that they could shut out our testimony, on the point of originality, as against all the world. That question would have to go to the jury.

But have we had any opportunity to make proof that Bain was the first inventor? We have not. All testimony back of his patent was ruled out by the Commissioner. Yet that is the question now before this court. The decision of the Commissioner is a wrong to us; Bain has not had a fair trial. It is your honor who is to do us right; and in order to that end, will you not have to order the case back to the Commissioner, and direct him to receive the testimony formerly ruled out?

Now, suppose the patent is awarded to Bain, instead of Morse. Morse then sets his machine. Bain sues for infringement. What would the issue be? Just the same as in the other case, viz., who was the first inventor? Would Morse be allowed to put in the plea that he was the first *American* inventor—the first inventor "in this country?" Where is the authority in law for putting in any such plea as that? The defence, under the 15th section of the statute, would be confined to the question whether Morse was "the original and first inventor or discoverer of the thing." Would not your honor be bound so to decide? If you were now sitting on the bench of the circuit court, and there was a jury in the box, would you not charge, that the question for them to try was whether Morse was or was not "the original and first inventor" of the machine in question? If the counsel for Morse should urge you to charge that the question was whether Morse was the first *American* inventor, would you comply? Certainly not. And if Bain, as defendant, could prove that he was himself the first inventor, and that Morse was not, his plea, according to the statute, would be

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valid, and judgment must go for the defendant. So, on a suit under the patent, the question would be the same. Suppose the circuit judge should decide (I beg your honor's pardon, I know that you never could make such a decision) that Bain's testimony must be shut out, would not the decision be reversed? Surely.

To make the question practical. Bain comes, and Morse comes—both claiming a certain invention. Bain produces his English patent of December, 1846; Morse says that he discovered the same thing in September, 1846. Bain then says that on the 1st of January he made the discovery and applied it to a useful purpose. What could Morse say? He might get up and say, "You are a foreigner; you can't go behind the date of your patent." But would any tribunal admit such a plea? Never. How would the parties stand? Bain is not to be allowed one moment between the completion of his invention and the date of his patent; while Morse claims two years before the trial. This is not fair; it is not according to the rule of right, which will ever prevail in this court, and in all other courts.

The learned authority I have quoted, when addressing your honor yesterday, did not attempt to sustain the Commissioner's position, advanced also by his associate counsel, Mr. Kendall, that a man cannot get a patent for a new mode of making an old thing.

Mr. Lawrence. I did not intend to relinquish any of the points made by my colleague, though I may not have touched on all of them myself.

Mr. Gillet. I cheerfully acquit my professional brother of all intention to urge such a point as that. I ask your honor to look at Hindmarsh, as well as the numerous and clear American authorities I quoted, all going in one direction to contradict it.

This closes, substantially, what I have to say on this appeal.

Let me now, then, recapitulate the points which I believe to have been established here in argument:

1. That Bain's claim would be good against the world, unless it interferes with Morse's claim.

2. That Morse's caveat is no part of his application, and cannot aid what was subsequently made.

3. That Morse's application was illegal and imperfect while it remained in the secret archives of the Patent office; and was not complete and a valid application, until his model was deposited in the office on the 15th of August, 1848.

4. That his specification is imperfect and insufficient. That he could not go outside of it to draw in other papers to make it perfect.

5. That his model is still imperfect.

6. That he has not shown it can be used in practice.

7. That he has claimed, as inventor, all the machinery he employs, while his own counsel have admitted here that nearly all of it is old.

8. That the evidence, as it stands, shows Morse's application to have been so imperfect that it cannot interfere with Bain's.

9. That, if there is no interference, a patent must issue to Bain.

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10. That Morse, having claimed too much, is on that account debarred from a patent.

11. That the Commissioner should have allowed Bain to prove that he was the first inventor.

12. That if a patent is not to issue to Bain on the alleged ground of interference, then your honor is bound to send the case back to the Commissioner to try the question, who is the first inventor as to all the world.

13. That if, on examination, it shall turn out that the patent of 1843 is identical with that of 1846, the Commissioner ought to have issued a patent to Bain on the evidence before him.

14. That the testimony offered by Bain must be considered as having been refused, and the case must therefore be sent back—unless your honor orders a patent to issue at once to Bain.

These are some of the positions we think we have established.

Chief Justice. There is one point you have not mentioned, viz., that I have no jurisdiction on the question of interference; have you thought of that?

Mr. Gillet. Yes, your honor, and am prepared upon it.

I say that the question of interference is involved in the question who was the first inventor? Unless they show that Morse's machine is like Bain's, and was invented before Bain invented his, if they produce a machine which is not like Bain's, then they do not show that they were the first inventors of Bain's machine. The question is, which was the first discoverer. What does Bain bring into court as first? He brings his own machine. The question then is, whether the other side can prove that they invented the same thing before he did; and to show that they are compelled to show that the two things are alike, suppose Morse had invented an inkstand, and they say that it interfered with Morse's telegraphic circuit, must not your honor look at it to see whether the two things are alike? Why did they wish to prove the principles of the two machines, unless they desired to show that the two were alike? I say that the question of priority of invention obliges them to show that they have got a thing like Bain's, which they invented before Bain. If the two things are not alike, then they are not the first discoverers; if they are alike, then the question that remains is, who was the first discoverer. So that your honor clearly has jurisdiction of the question of identity or interference.

Chief Justice. Before I decide the question on this appeal, I should like to see the notes which have been taken by Mr. Stansbury, who, I understand, is engaged to prepare a full report of the whole case.

Mr. Stansbury here said, that the report was intended for the press; but that he would with pleasure submit the manuscript to the Judge, as soon as it was completed.

Chief Justice. If the report is printed, I shall be glad of an opportunity of reading it.

I should be glad to have the work of Godson, and that by Hindmarsh,

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APPENDIX.

Copy of Bain's Application.

To the Hon. EDMUND BURKE,
Commissioner of Patents of the United States.

The memorial of Alexander Bain, formerly of Edinburgh, now of the city of London, and kingdom of England, at present in the United States, electrical engineer, and a subject of the Queen of Great Britain and Ireland, respectfully represents:

That your memorialist hath invented, and made, and applied to use, certain new and useful improvements in the construction and operation of electric telegraphs; which improvements, commencing with the mechanical means of composing a message or communication by signs made by perforations *through* paper, proceed to transmit such message or communication to one, or to a plurality of distant stations, by passing the paper through suitable machinery, forming part of one or more electric circuits, in such a manner that the non-conducting substance of the paper, passing *between* the electrically excited parts of the machinery, interrupts the electric current; but the electrized parts of the machinery coming in contact *through* the perforations that form in the paper the message or communications, instantly completes the electric circuit, and transmits the corresponding signs successively to one, or simultaneously to any greater or less plurality of distant stations; as the message paper is drawn through the electric apparatus or machinery, the message so transmitted is recorded at the receiving stations by the successive passages of the electric current through, or on chemically prepared paper, which passes the electric conductor with proportionate speed to the travel of the paper at the transmitting station. This chemically prepared paper is by this means marked in signs corresponding to the perforations forming the message or communications at the transmitting station with far greater rapidity than by any other known mode of using electric telegraphs; which improvements he verily believes have not been so known or used, as he has made and used the same, prior to his late invention and completion thereof; the benefits of which he is desirous of securing to himself and his legal representatives.

That your memorialist obtained a patent of the British government, issued and bearing date in London, on or about the twelfth of December, one thousand eight hundred and forty-six, for the said invention and improvements, as then made by your memorialist, who is now desirous of introducing the said invention, and with further improvements, under

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the protection of the law, for public benefit and use in the United States.

He therefore prays that letters patent of the United States may be issued, securing to him the exclusive right in the said invention and improvements, as the same are set forth and shown on the annexed and accompanying specification and drawings, and agreeably to the acts of Congress providing for such cases, he having paid the sum of five hundred dollars into the treasury of the United States, and otherwise complied with the provisions of the said acts; and

Remaining, respectfully,

ALEXANDER BAIN.

New York, *April* 17, 1848.

UNITED STATES OF AMERICA,
City and county of New York,
in the southern district of New York, ss:

On this day, the seventeenth of April, in the year one thousand eight hundred and forty-eight, before me, George W. Morton, deputy clerk of the district court of the United States, for the southern district of New York, and United States commissioner, personally appeared the within named Alexander Bain, of the city of London, and kingdom of England, whose name was by him subscribed hereto in my presence; and having been duly identified to me by William Serrell, of this city, who is well known to me, the said Alexander Bain thereupon made solemn oath, in due form of law, that he verily believes himself to be the original and first inventor of certain new and useful improvements in the mechanical means of composing messages or communications, and transmitting the same by the agency of telegraphic machinery to one or more distant stations, where the electric current marks the message or communication, as the said improvements are set forth and shown in the annexed descriptive specification, referring to drawings accompanying the same.

That he does not know or believe that the said improvements were, in any manner, ever so known or used, as he has made and used the same, prior to his late and original and first invention and completion thereof. That he is a subject of the Queen of Great Britain and Ireland, by whom a patent was granted to him for the said invention and improvements in London, on or about the twelfth day of December, one thousand eight hundred and forty-six. That he is desirous of obtaining letters patent of the United States, for the purposes of lawfully securing the said invention and improvements to himself and his legal representatives, and of introducing the same into public use and benefit in the United States.

ALEXANDER BAIN.

Subscribed and sworn at the City Hall of the said city, this seventeenth day of April, in the year one thousand eight hundred and forty-eight, before me.

GEO. W. MORTON,
Dep'y clerk and U. S. com'r.

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To all to whom these presents may come:

Know ye, that I, Alexander Bain, formerly of Edinburg, now of the city of London, at present in the city of New York, electric telegraph engineer, a subject of the Queen of Great Britain, have invented and made, and applied to use, certain new and useful improvements in the construction of electric telegraphs, for which original invention a patent was granted to me by the Government of Great Britain and Ireland, dated in London, the twelfth of December, one thousand eight hundred and forty-six; for which said original invention, including other additional and important improvements thereon, I now seek letters patent of the United States. That the said improvements differ with all other precedent modes employed in electric telegraphs, first, by using electricity in a manner independent of any magnetic action; secondly, in composing a message or communication by perforations through paper, in sets of characters, each of which represents a letter of the alphabet, or numeral figure, or other needful sign; which arrangement of perforated signs being arbitrary, may be changed at pleasure, so as to transmit secret or other important communications by signs, not understood by those not having the key or index of the secret arrangement; thirdly, by an arrangement of mechanical means, through which the non-conducting substance of the paper, passing between the electrically excited parts of the machinery, interrupts the circuit, except when the perforated parts forming the signs pass between the electrically excited parts of the machinery, and place these in contact in a manner that completes the circuit, transmitting a corresponding electric pulsation to the receiving apparatus at the distant station; fourthly, in recording the pulsations so given by the intermittently passed electric fluid, on chemically prepared paper, in such a manner as permanently to record on the chemically prepared substance a succession of signs corresponding to the perforations in the papers used at the transmitting station; and, fifthly, in the arrangement of mechanical means by which a communication, when composed, can be simultaneously transmitted through one machine to any plurality of distant stations, at or nearly at the same instant of time, and as will be shown hereafter, with a rapidity unknown in electro-telegraphic apparatus wherein magnetic influences are admitted.

The mode of effecting these operations is fully and substantially set forth in the following description, and shown in the accompanying drawings, making part of this specification of the said improvements, in which the several sheets show the successive parts of the machinery and operations, and these are described in the order in which the parts are used; the like letters, numbers, or other marks of reference employed herein, where the same mark is used more than once, applying alike to the same parts in all the figures and sheets referred to. In the fig. 1, sheet 1 is a front or full elevation of the machine for cutting paper into strips; fig. 2 is an end elevation of the same at the end *A*, of fig. 1, with the driving handle B removed; *a* is bed plate of wood; *a* 1,

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a 1, are two metal standards; *a* 2, *a* 2, are two lower longitudinal tie rods, with shoulders inside the standards, and screws and nuts outside; *a* 3, is a spreader rod, merely shouldered, to enter a socket in the upper part of each standard, to gauge their distance apart; *a* 4, are lower journal boxes, carrying the lower shaft, *a* 5; *a* 6, are upper journal boxes, carrying the upper shaft, *a* 7; the shaft, *a* 5, carries the lower roller, *a* 8; the shaft, *a* 7, carries the upper roller, *a* 9; these rollers are formed with handed serrated grooves, as shown in the drawing, the pitches, from the back of each groove to the edge of the next, being exactly alike, to cut paper when passed through, in equally wide parallel slips, for use in the transmitting part of the machinery, by the edges of the serrated grooves dividing the paper, with the operation of rotary parallel cutters, the end adjusting screw, *b*, next the end of the shaft *a* 7, gives the means of keeping the cutting edges in contact; and the vertical adjusting screws, *b* 1, adjust the pressure of the top roller on the one below; the handle, *B*, may be used indifferently on the upper shaft, as shown, or on the other end of the lower shaft, as may be convenient; the uses of this machine will be fully obvious, without further explanation; and it is described as the best known application of mechanical means for this purpose.

Before describing the means of making the perforations to form the signs, it may be proper to describe the signs hitherto found most available; by referring to fig. 7, sheet 1, by which it will be seen that the letter *A* is formed by one small dot and a line, thus, . —; the letter *B* by a dot, a line, and a dot, thus, . — .; and so on, of the rest; but it will be seen, that all the letters to *N*, inclusive, except I, are begun with a dot or dots to the left of the line; *L*, being formed by four dots, and *O*, by two dots; all following are begun with a line to the left of the dot or dots used; the *Y* and *Z*, with the abbreviation &, being represented by lines only. The numeral signs to 5, inclusive, also commence with a dot or dots, and from 6 to 0, inclusive; these numerals begin with lines, the fractional line is represented by — .— . —, and is to be preceded by the numerator and followed by the denominator of the given fraction, thus, ... —.—.———... will represent $\frac{5}{8}$, and so on, of all the other signs. It has been before noticed, that these signs are arbitrary and changeable; but, as will be seen hereinafter, the means of composing, transmitting, and recording signs are equally effective for any other system of signs that may hereafter be found, either better in arrangement, or more especially applicable for any particular object.

The mechanical means of composing any communications, by the above, or any agreed system of signs, by perforations through paper, are also shown in sheet 1, wherein fig. 3 is a general side elevation; fig. 4, a front elevation; fig. 5, a sectional elevation, through the central line of fig. 6, which is a plan of what will be understood as a small punch press, shown as full size, for use, and the acting parts fitted, with reference to this particular purpose. In these, *b* 2, is the bearing block, which may be made and placed in any convenient manner, and

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carries the bed plate, *b* 3, of the standard, *b* 4, on the foot of which is the guide block, *b* 5, formed with a wide shallow groove beneath, and with an under cut bevel on the left side, shown full on fig. 3, and by dotted lines in figures 4 and 6, allowing the operator to see the perforations as they are made through the passing paper; a steady pin and screw hold the block on the bed; and the die, 1, lies under the block on the bed; and the die, 1, lies under the block, *b* 5, and has a conical hole, opening downwards to the top of a hole, 2, in the bed plate, *b* 3, and block, *b* 2; the punch, 3, passes through the head of the standard, *b* 4, with a pin into a groove, to keep the punch from turning, and has an expansive helical spring, 4, round it, footing on the guide arm of the standard, and at top taking a pin, ×, in the punch, the shoulder of the driving head, 5, comes down on the leather washer beneath; the slots 6, in the plate, *b* 3, or staples on the plate, serve as entering and leaving guides to the paper, *b* 6; and the set screws, 7, in the guide arm of the standard, serve to centre the shaft of punch as it wears in use. The punch is cylindrical, having a flat end and a sharp edge, and the whole of the parts very accurately fitted and adjusted together without any lateral shake in the punch, so that it enters the die properly. When so completed, the composition passes a strip of paper, of any required length, from beneath, through the right hand slot, 6, and under the guide block, *b* 5, out and downwards, through the left hand slot, 6, when the compositor strikes the head, 5, with a small ball of wood, covered with leather or India rubber, in his right hand, which forces the punch point through the paper, into the die, cutting out a small disk, that falls through the die and holes below; the expansive spring, 4, throws the punch up, while the compositor, by his left finger and thumb, draws the paper on, to strike successively again on the punch head, at the required distance, which, for a second, or next successive single perforation, should be equal to the diameter of one dot, the space between a dot and the commencement of a line, the same to form a line the compositor draws the paper on, a little less than the diameter of a dot, successively, until he has struck the punch so many times, as will form a line equal to three diameters of one dot, leaving a space between the ends and the commencements of lines in the same manner, equal to the diameter of one dot; the space between each two letters equal to four dots; and the space between each two successive words equal to the diameter of eight dots. This process forms groups of perforation in a continuous line, each of which groups complete a sign representing a letter or numeral, and the larger spaces show the ends, commencements of words, that, so placed, are formed and read from left to right, along the centre of the paper, in the same manner as common writing or printing. In this manner, a competent compositor, with a thorough knowledge of the signs, will compose a communication nearly as fast as it can be set up in type, and as fast as the same quantity of matter can be marked upon paper by magnetism operating through mechanical means. When all the perforations are made, the paper strip is to be wound on a roller, which fits into the

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transmitting machine, so that the communication is ready to be passed through that machine, which is next to be described, as follows:

In the sheet, 2, fig. 8, is a half-size plan of the transmitting and receiving apparatus. One such complete apparatus is to be placed at each station.

In sheet 3, fig. 9, is a front elevation, on the side *H*, of fig. 8; fig. 10 is an end elevation of the end *I*, fig. 8. In the sheet 4, fig. 11 is an end elevation, at the side *K*, of the fig. 8; and fig. 12 is an elevation of the side *L*, fig. 8. These last four figures are all shown in one-fourth size. In all these five figures, *C* is the bed frame, and *D D* are the legs to sustain *E*, the box containing and sustaining the machinery. *F* is a hand-wheel, outside of *G*; which letter *G* refers to the space and frames of the clockwork; in which *c* is the principal shaft from *E* to the first wheel, *c* 1, gearing to 8, the first pinion and shaft. This pinion gears into a second wheel, *c* 2, which gears into a second pinion, 9, which is on a shaft that carries a mitre wheel, *c* 3, which gears with a horizontal mitre wheel, *c* 4, on the governor shaft, 10. The governor is fitted to lift the slider from below, but otherwise, in the usual way, and needs no further description, except that it is regulated, as to speed, by the contact of the upper sides of the upper arms with the lower edge of the tube, 11, formed as a female screw, to receive the male screw on the lower end of the tube, 12, which is attached to the bar above; so that by turning the tube, 11, to unscrew from the tube, 12, the friction on the arms of the governor is increased, and, as a consequence, the speed of the machine decreased; the contrary effect is produced by turning the tube, 11, to screw upward. In the space denoted by the letter *G*, the frames, and most of the clock-works, and some other parts referred to by successive marks, are shown by dotted lines as being within the box *E*; the internal standards, and other supports, are not shown, to avoid a complexity of lines; but these parts are all duly provided, and the pillars and frames that support the governor are as shown in the drawing. The *action* of the governor is communicated as follows: To frames 13 carry 14, the fulcrum of a lever and weight, 15, lying inside the fulcrum, the other portion prolonged outwards as a fork, 16, the arms of which pass one on each side the governor slider, between collects that lift the arms, 16, and a piece of brass, 17, on their outer ends, out of contact with the parts below them, when the machine is in work; and when not in work, the contact of these parts serves a purpose that will be hereinafter described.

The proper motions are given to the transmitting apparatus from the wheel *F*, as follows: On the inner end of the shaft carrying the second pinion, 9, a pipe, 18, is riveted, that carries a cross bar, *c* 5; this bar takes on its opposite sides the ends of the pins, 19, that protrude from a catch bar, *c* 6, which is on this end of the principal internal shaft, *c* 7, lying across the machine in two frames, *c* 8, that respectively form bearings for the end of the shaft, *c* 7, which, at the opposite ends, carries a cross bar, 20. This bar must be made of ivory, or any other non-conducting substance strong enough for the purpose, and that will

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be effective in isolating the electric current in the transmitting parts of the machine, so that it does not go through the bar, *c* 7, to the other side of the machine. The ivory bar, 20, takes on its opposite sides the points of pins, 21, that protrude from the catch bar, *c* 9. This is on the inner end of the shaft, 22, that carries the leading roller, *d*; so that the bars and pins, collectively, form open clutch frames, that allow of detaching the leading roller, *d*, from the shaft, *c* 7, without disturbing the other parts of the works. The outer end of the shaft, 22, lies in the lower forked and open bearings of two standards, 23, placed on the bearing plate, *d* 3; the same piece forms upwards like open bearings for the shaft, 24, that carries the pressing roller, *d* 1; at × a small standard supports an arm, 25, that forms the fulcrum of the pressing lever and weight, *d* 2; the weight sliding on the lever is adjusted to give a proper pressure, and secured there by the screw, 26; the lever, *d* 2, terminates in a fork, 27, the parts of which lie one on each side the pressing roller, *d* 1, on the shaft, 24, to keep the roller, *d* 1, down, to draw the paper through, as is hereinafter shown. But when the transmitting part is not in use, the lever, *d* 2, and weight may be turned back over the fulcrum, and hang down by the front of the box, *E*. The bearing plate, *d* 3, will be best made of metal, and supported at the front of the box, *E*, by metal brackets, 28, as seen best in fig. 9, to keep the transmitting parts duly in place and adjustment to each other. The open bearings, 30 on *d* 3, carry the shaft, 29, of the paper roller, *d* 4; a pair of pins, ×, go through the horns of the bearings, 30, and a pair of rising springs, 34, press against the under side of the shaft, 29, to create a friction between their points and the axle, and between the axle and the pins, ×, sufficient to prevent the paper on the roller unwinding too quick when in use; the handle, 31, serves to wind the paper on the roller.

At *d* 6 is a standard forming an index plate, carrying a stud, having on it a socket pipe, 35, with a binding screw that secures a brush or comb of metal, 36, the points of which overlie the paper having the perforations, and these points complete the electric circuit, by contact, through the perforations in the paper, with the transmitting roller, *d* 5, lying under the comb or brush, 36, on a shaft, 32, in open bearings, 33, or pointer, 37, on the socket pipe, 35, gives the means of regulating the pressure of the points of the comb, 36, on the roller, *d* 5, and keeping that pressure equal, by a screw ×, going through the pointer, 37, in shallow holes in the index plate, *d* 6. The guides, 40, on each side of the paper roller, *d* 4, hang on joints, under the plate, *d* 3, and their lower ends take a bracket, 41, having notches, by which the guides, 40, are kept *to* the paper when winding *on*, and *from* the paper when winding *off*; the guides, 42, keep the paper fair on the transmitting roller, *d* 5. The brass wire, *d* 7, is attached by a binding screw to the standard, *d* 6, and carried on by staples inside the box, *E*, so that the other end is attached, at *d* 8, by a binding screw, to the wire, 38, that leads to the distant station. At 39 is the wire connecting to the positive pole of voltaic battery, with a binding screw, 43; these are in

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contact with a plate, 44, on the front of the machine, completing the circuit to *d* 3, the bearing plate before referred to. At 45 is a spring, with an inverted stud under the free end, to form contact with the conducting block, 46, when required. 47 is a continuation of the spring, 45, extending to the binding screw, *d* 8, and thence at 48, to the foot of the standard, *e* 5, hereafter referred to.

The action of the transmitting apparatus is as follows: A person is to turn the wheel, *F*, at the rate of one revolution of the wheel per minute of time, in the direction of the arrow on it; the speed, so given, is ascertained by dials and pointers, that are hereafter fully explained, and by the clock work; these give the proper motion to the shaft, *c* 7, and leading roller, *d*. The electric current from the positive pole of the battery entering by the wire, 39, to the binding screw, 43, and thence by the conducting plate, 44; then travels on to the plate, *d* 3; thence through the transmitting roller, *d* 5, and perforations in the paper containing the message, to the brush, 36; from thence, by the pipe and stud, 35, to the wire, *d* 7; thence to the distant station, by the long telegraphic wire, 38. The paper being a non-conductor of electricity, the electric current flows on through the wire 38, in a series of intermittent long and short pulsations, regulated by the perforations in the paper, as they successively pass under, and allow the points of the wire brush, 36, to come in contact with the roller, *d* 5; thus transmitting these electric pulsations to the receiving station with much greater rapidity than by any other known mode. It is proper here to remark, that the same wire, 38, which transmits a communication from one station to another, also receives, in the *opposite* direction, any communication from the second, or other station, to the first station, as hereafter shown. For the purpose of giving a preparatory signal to the receiving station that a message is to be sent on, the spring 45 serves, when pressed down in contact with the block 46, to transmit a current into the wire 38, by the plate 47; this circuit is completed by simply pressing the spring 45 into the block 46, and may be occasionally used to transmit short notices.

Having thus shown the construction, operation, and effect of the transmitting portion of the apparatus, the receiving and recording portions comes next in order: All these portions are embodied in the figs. 8, 9, 10, 11, and 12, sheets 2, 3, and 4; but it is first to be considered that a similar machine is to be placed at each of two distant stations, so that the wire 38 is employed as the connection to and from each, then the following description will be fully understood.

It may be proper to notice that the figures show two large receiving metal cylinders, *M*, and to explain that the general description following will only refer to the operations effected with one cylinder, as the second is to be considered as an auxiliary, to be ready for use when the first is either removed to transcribe a previous communication, or to complete any communication so long that it cannot be contained on the first cylinder. These cylinders, and their shafts, fit either position in the machine, and one can be equipped for use while the other is in

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action. The principal shaft, *c* 7, is fitted in, nearly the centre of its length, with a double pully, *e* 1, to give motion to an endless cord or band, 51. The first bite of this lies round the pully; a second bite descends, to pass through a pully, 52, that supports a weight, 53; the next bite passes over a pully, 54; and the fourth bite passes under the receiving cylinder, *M*, to the pully, *e* 1. The cylinder, *M*, is mounted on a shaft that does *not* revolve with the cylinder. The part *e* 2 of the shaft is blank, but the part *e* 3 is made as a screw, with a left handed thread cut into it. This part is lodged in the opening, 55, in the side of the box, *E*. The end of the part *e* 2 is lodged in a metal bearing, on the opposite of the box, with a pin going through the shaft that slips into a hole in the bearing, so that the shaft cannot turn; but that and the cylinder may be conveniently lifted out and replaced when needful. The screwed end of the right hand shaft, fig. 8, appears to overlie the wire, *d* 7; but the wire is so much below the shaft that they do not touch. On the end of each cylinder that is next the screw are slotted steel slips, *e* 4, forming tongues, the points of which enter and travel round the screw. A guide and steady screw, 57, goes through a slot in the slip. A hand pin, 58, gives the means of sliding the slip, and a guide and set screw, 59, secures the slip when adjusted. In fig. 8, dotted lines show the relative position that the right hand, or either cylinder, will take when it has been fully used. The dotted lines to the left hand cylinder show the relative position of either of the cylinders when first ready for work. The operation of these parts is, that while the apparatus is in work the band, 51, beneath causes the cylinders to rotate in the direction of the black arrows on them; and the steel tongues in the screw thread give them a gradual motion across the machine in the direction of the red arrows, which motion is equal to the pitch of one screw thread for each entire revolution of the cylinder; so that marks made by a fixed point, in contact with any substance on the cylinder, are made, and can be read, from left to right, in successive lines, the same as common printing or writing.

The standards, *e* 5, are fitted below, with arms forming bearings, 60, for the arbors of the pullies, 54. At their tops, the standards carry the axles, *e* 6, of the stems of 61. These have on their points the holders, *e* 7, which are fitted to receive the writing or marking styles, 62. These styles are best made of hardened and tempered steel. Above and upon each holder, *e* 7, a bracket piece, 63, receives a set screw, 64, to regulate the styles, 62; and on one side of each holder, *e* 7, a knife, 49, is set on a screw pivot, so that, by throwing it forward, a portion of the paper may be cut from the cylinder, and when thrown back it is out of operation.

In the fig. 10, sheet 3, and fig. 11, sheet 4, parts are shown, by dotted lines, that form the enclosure of the box, and the overlying of the upper parts cannot well be shown in any other manner. In these, *e* 8 is a cross shaft, set in the same line with the shaft, *c*, of the wheel, *F*, and connected to that shaft by bars and pins, forming an open clutch frame, 65, similar to those on the shaft, *e* 7. This shaft, *e* 8, has a

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frame bearing, at the end next the wheel, *c* 1, and at the opposite end terminates in bearings, 67, outside the box, and is fitted with a square, 50, on which the operator may place a handle to work the machine in the absence of a person to work the wheel, *F*. Within the box, the shaft, *e* 8, carries a pointer, 66, one in front of each of the two dials, *e* 9. These are so placed that the person at the wheel, *F*, sees the dial next the operator, and the operator sees the dial next the wheel, *F*; so that either or both persons have occular means of knowing that the machinery shall only be driven at the rate of one revolution of the wheels, *F* and *c* 1, in each succeeding minute of time, by a watch placed in view of the person at the wheel, and of the operator, as this uniformity of speed is essential to the correct operation and effects of the acting parts, at both the transmitting and receiving stations.

In figs. 8, sheet 2, and 12, sheet 4, *f* is a conducting plate, the ends of which are in contact with the blank ends, *e* 2, of the cylinder shafts. This plate, *f*, has, near the centre of its length, a knee piece, *f* 1, the horizontal arm of which lies above the points of the two arms, 16, and plate, 17, of the lever, 15. When the apparatus is not in work, the piece, 17, lies on the top of a piece, 70, seen best in fig. 12. The piece, 70, is connected by a wire, 71, to the wire, 72, which passes round the box to the standards, *e* 5, at each end. The screw, 68, fig. 12, goes through the box, into the clock work, and holds a second conducting plate, *f* 2. This, by a binding screw, 69, connected to a wire, *f* 3, that leads to a copper plate in the earth. The general action, uses, and effects of these parts are as follows:

To receive a communication, the wire brush, 36, is to be turned back to the right, by means of the pointer, 37, to be out of contact with the transmitting roller, *d* 5; then take a piece of fine good smooth paper, the width of which should be equal to the length of the cylinder, and long enough to go round the cylinder, *M*, with the ends lapping over each other about a quarter of an inch. This paper is to be previously prepared, as follows:

It is to be laid on any clean surface that acids will not act on. The paper is then to be covered, on the upper surface, with oil, by a very clean sponge. For this, good salad oil will answer; but other oils will answer if they do not evaporate too quickly; because the use of the oil is to lessen the evaporation of the chemicals next noticed, by retaining their moisture. The paper is then to be turned over, and washed with a clean sponge, containing a solution of nitric acid, prussiate of potash, and liquid ammonia, in the following proportions. The ammonia is merely added to prevent the other ingredients from rotting the paper.

Two parts, by measure, of pure nitric acid; twenty parts, by measure, of a saturated solution of prussiate of potash in distilled water; and two parts of pure liquid ammonia, mixed together. The paper, so prepared, is to be laid, with the oiled surface upwards, on and round the cylinder, and the lapping edges fastened with a little gum water. The cylinder is then to be put in place, and the steel style, 62, is to be

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turned on the paper, as shown in figs. 9 and 12. The apparatus is then ready to receive a transmitted communication. The machinery is then to be worked by a man at the wheel, *F*, at the rate of one revolution of the wheel per minute, the same as in transmitting a communication, and as before stated.

The operator, at any one distant station, transmits the electric current in pulsations regulated by the perforations in the paper he is using, as already explained, and these pulsations are received by the wire 38, as before mentioned; they pass by the screw *d* 8, and standards *e* 5, at axle *e* 6; thence to the stem 61, and through that to the style 62, and through the chemically prepared paper to the cylinder *M*, leaving a series of dark marks on the paper, which, though less in size, will be in number and position an exact transcript of the perforations in the paper used at the transmitting station. It is proper to notice that steel styles leave a dark mark, approaching black, or blue-black, on the paper; but copper styles will leave a brown mark on the paper. It is not intended to discuss the theory of the causes that produce these effects and facts; nor is it intended to claim the use of any particular chemical solutions, either separate or conjoined, because the paper, saturated with a solution of nitric acid only, will receive a communication that will not become visible until the paper is washed with a solution of prussiate of potash; therefore, any chemical solutions may be used that will produce the best effects, and I have stated the solution of nitric acid and prussiate of potash, as those that I have hitherto found most effective in practical use. After the current has produced its mark and passed into the cylinder *M*, it passes into the axle *e* 2; thence to the conducting plate *f*, at the back of the machine (*fig.* 12.) This has a kneed piece *f* 1, the horizontal arm of which is above the piece of brass 17, on two arms 16, of the lever 15, and by contact with that, while the machine is working, the electric current passes into the clock work; thence by the screws 68 to the plate *f* 2, (*fig.* 12;) thence by the binding screw 69, and wire *f* 3, to a copper plate, which is to be buried in the earth, at the nearest convenient point to the instrument; the current then passes by the moisture of the earth to the negative pole of the source of the electric power. When the machine is not in action, any currents that may be sent through this circuit will pass from the wire 38, by the standard *e* 5, on the right hand end of the machine, to the wire 72; thence to the wire 71; from that to the piece of brass 70; thence by the brass 17, to the arms 16; and thence to the clock work; thence by the wire *f* 3, to the earth. By these arrangements, if there are a plurality of machines in any one circuit, the machines not in use cause no interruption to the electric circuit.

These several electric connections are the best that have hitherto been used, but may be varied in several ways, other than those described and shown.

But it is to be particularly borne in mind, that in any case the electric current must pass *from* the marking style to the chemically prepared paper, and not from the paper to the marking style.

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Having detailed the construction, operation, and effects of these improvements, as applied from one telegraph station to another, the means are now to be described by which one communication is to be transmitted from a transmitting station to any plurality of receiving stations, at, or very nearly at, the same instant of time. In the sheet 5, the fig. 13, is a plan of a transmitting machine, shown as of one-half size, for transmitting a communication simultaneously to each of six distant stations. In sheet 6, fig. 14, is a front elevation of the same machine, seen on the side *N*, of fig. 13; fig. 15 is an end elevation, as seen at the end *O*, of fig. 13; fig. 16 is a back elevation, as seen on the side *P*, of fig. 13; and fig. 17 is an end elevation, at the end *Q*, of fig. 13. In these figs., *R*, is the bed or table frame; and *S*, the legs that support the machinery; *g g*, are pillars and rods surrounding the work, and sustaining a cover when the machine is not in use; *g* 1 are standards, and *g* 2 a platform board. It is needful that all these parts should be of hard dry wood, that will be a non-conductor of electricity, and also be effective to carry the working parts of the machinery. At *T* is the enclosure of the clock works, with all the interior parts, and the governor, the same as those previously described and shown, as used in the former apparatus, except that the governor has neither slider nor cross lever; and the figs. 15 and 17, show those frame plates and binding pillars, with the wheels and shafts or arbors of the clock work in full lines, that could only be denoted by dotted lines in the drawings that include the same parts in the former machines; in these figs. the driving wheel is marked *U*, instead of *F*; *V V* are a pair of standards, fixed on the bed-piece, forming guides for the paper, and carrying the shaft 73, of the paper roller *g* 3, with a handle and balance-weight 74; these receive the paper that contains the communication, which, when wound on for use, is transferred to 75, where the paper and roller *g* 4, is shown in place for working off the communication suspended in the open bearings of standards 75, with pins above and friction springs below the shaft, and guide-levers 97, for the paper, the same as shown in the former machine; these guide-levers 97, are shown here, as for use, if a communication should have to be repeated, to guide the paper on to the roller again; a slot 76, in the platform *g* 2, in line with the roller, gives space for a quantity of paper on the roller. On the foot of a small two part standard *g* 5, is a guide-fork 77, seen in dotted lines in figs. 14 and 16, and full in fig. 17; this fork, 77, leads the paper to the guide-roller 78, the arbor of which is in open bearings on the standards *g* 5, with pins to keep the arbor in place. The six double standards 79, each pair on one foot, are screwed to the platform *g* 2, and are fitted each with an open bearing, carrying the arbors of the successive transmitting rollers 80; these are shown as six, but may be more or less in number. At *g* 6, a double standard is fitted, with two open bearings on each upright; the lower bearings carry the arbor of the leading roller 81; the upper bearings carry the arbor of the pressing roller 82; and a guide-fork 83, on the foot of the standard *g* 6, has one arm on each side of the roller 81 and 82, and a cross shaft *g* 7, from the clock works *T*,

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connects the driving power with the leading roller 81, by open clutch frames, having the same parts and action as have been already shown and described in the former machines. The pillars 84, (on *g* 2,) are fitted at their tops, as bearings to sustain the journals of a cross head 85, that takes this end of a carrier bar *g* 8, which has on each side a plate 86, that is cut into a series of five pendant bearings 87, one descending between each two of the transmitting rollers 80, and each pair of bearings carrying between them a small guide-roller, shown in place, but not marked; each pendent is lengthened below the roller, to form guides on each side of the paper as it passes over the transmitting rollers, and beneath the guide rollers; a fork *g* 9, with levelling screws 88, overlies the arbor on each side of the pressing roller 82, and a screw and nut 89; on this end of the bar *g* 8 secures the flanch of the fork *g* 9, and holds one of two standards *h h* on the bar *g* 8; these standards carry the bar and adjustable weight 90; the whole of the parts attached to the bar *g* 8, are fitted to serve the purpose of guiding the perforated paper truly, in a compound curved line, over the transmitting rollers and beneath the pendent rollers, so that the paper passes with a tension that causes a slight pressure on each transmitting roller, and the weight 90, through the fork *g* 9, keeps the pressing roller 82 down on the leading roller 81, with a pressure regulated by the position or ponderosity of the weight, to draw the paper through the *the* machine at a proper and regular speed; to aid this operation the circumferences of the rollers 81 and 82 may be slightly roughened. When it is intended to enter one end of a paper for passing it through the machine, the bar *g* 8, with its appendages, are to be lifted out of place and laid on to the wooden bearing standard *W;* these are placed on the bed of the machine for this purpose, and when the paper is entered and placed, the bar and its appendages are to be returned to their proper position.

The standards, *h* 1, are screwed on the platform, *g* 2; and each terminates upwards as an index plate, *h* 2. On this each has a stud and pipe, carrying a comb or brush that overlies the corresponding transmitting roller, and an index pointer and presser screw, to regulate the contact of the brush and roller, all made and operating precisely in the same manner as the comb or brush that completes the electric current in the former, or transmitting machine, before described. It may be proper to notice that the standards of the transmitting rollers and those of the combs or brushes are insulated as regards each other—that is, they do not any one touch another, and both are insulated as regards any other electric action by the platform *g* 2, which, for this purpose, must be made of very dry and hard wood; and it will be found best, in practice, to have hard dry wood as the material for the whole of the table frames and legs used for supporting this machinery. At *x* are two dials, with pointers on the cross shaft 92. These are all fitted and placed as already described, to assist in regulating the speed at which the machinery must be worked. Each standard, 79, is connected to a binding screw, *h* 3, by a wire, 93, and thence by a wire, 94, each to the positive pole, or that by which the electricity leaves each separate bat-

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tery, or other fit source of electricity, which travels in the direction of the arrows. It must also be noted that the negative pole of each battery must be put in electric communication with the earth. The wires 95, each lead from a separate comb standard, *h* 1, by a binding screw, *h* 4, and leading wire, 96, to a separate distant station.

It is believed to be sufficiently plain, without much explanation, that, as the perforations, composed in the paper, successively pass under each comb, the electric circle will be completed by the points of the comb coming in contact with the roller through each perforation; and that a corresponding series of rapid electric pulsations will be thus communicated simultaneously to the marking style at each distant station. It is proper to remark, that the battery in connection with each transmitting roller must be of proportionate strength to the distance the current has to travel; and these arrangements admit of so graduating the strength of each battery, because each separate circuit is totally and entirely independent of any other circuit; and each circuit is completed at the receiving station, independent of any other station, and the communication transmitted is received and recorded at each receiving station, in the same manner, and with the same effects, as if made by the single acting machine first described.

All other electric telegraphs hitherto used are dependent on the motive power of electro-magnetism for their action; and many mechanical means have been sought or tried whereby to adapt this power for use, the main principle remaining the same in all; the machines are consequently all designated "electro-magnetic telegraphs."

But electricity travels with a velocity capable of giving several thousand signals per minute of time, and any apparatus, composed more or less of ponderous bodies, having also to give motion to other and similar bodies, cannot act with more than a fraction of the velocity with which electricity travels; and another and greater hindrance is, that, however skilful an operator may be, he can only open and close the electric circuit in a manner which again reduces the numerical velocity of its pulsations, and no other mode has yet effected the correct transmission of the same communication to a plurality of distant receiving stations.

I have, therefore, in my herein before described invention, rejected magnetism altogether; and caused the pulsation of the electric current to be transmitted through groups of perforations forming signs, which are recorded at the receiving stations by the pulsations of the electric current acting on chemically prepared paper in the manner described and shown, so that the circuit is completed and interrupted by the operation of the composed communication itself, without the electric current having to produce any mechanical motion, and without any manipulation of the operation in forming the intermittent pulsations of the electric current, thereby effecting the transmission of a communication to one or a plurality of distant receiving stations with far greater rapidity than by any other known mode.

It is not deemed requisite to describe or refer to the voltaic, or any other source of electricity; nor is it intended to claim the application of

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that or any other electric source to these purposes; nor is it intended to claim any of the parts employed herein, irrespective of the uses to which they are severally put as herein described. But I do claim as new and of my own invention, and desire to secure by letters patent of the United States—

First. The composing of electro-telegraphic communications by making groups of perforations through paper corresponding with or representing the signs to be transmitted, irrespective of the general arrangement of the collective or individual signs, and irrespective of the mechanical means employed to make the perforations.

Second. The application of paper, so perforated, to open and close an electric circuit, or several successive circuits, thereby transmitting the electric current or currents in successive pulsations, that correspond with the perforations in the paper, substantially in the manner described and shown, but including any merely practical or convenient variations of the mechanical means, or materials, or fabrics employed, that are analogous or equivalent in their operations and effects.

Third. The application of any suitable chemically prepared paper, without regard to the chemical ingredients used for such purpose, to receive and record signs forming communications, such signs being made by the pulsations of an electric current or currents transmitted from a distant station, said current operating directly, and without the intervention of any secondary current or mechanical contrivance, through a suitable metal marking style, that is in continuous contact with the receiving paper, thereby making marks thereon, which marks correspond with the groups of perforations in the paper composing the transmitted communication; or may be given by the pulsations from the spring 45 and block 46, so that in either case these form the received communication substantially in the manner and with the effects described and shown, including any merely practical variations, analogous and equivalent, in the means employed, and the effects produced thereby.

In witness whereof I have hereunto set my hand, in the city of New York, this seventeenth day of April, in the year one thousand eight hundred and forty-eight.

ALEXANDER BAIN.

Witness—
WM. SERRELL,
LEMUEL W. SERRELL.

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Examined:

W. H. SMITH.

To the honorable EDMUND BURKE.

SIR: The undersigned has carefully read over the specification of Mr. S. F. B. Morse, appended to his application for a patent in America, bearing date Washington, U. S., 20th January, 1848, having for its object the registration of telegraphic signals by electro chemical

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means; and has also experimentally examined the chemical details of the operations, and repeated the processes, according to the directions of the specification, as far as I have been able to understand and follow the directions of Mr. Morse. I must premise that these directions are most imperfectly given, and that they would be wholly unintelligible to any persons not well versed in electro-chemistry; for instance, no directions are given respecting the strength or other qualities of the different saline solutions, which are directed to be employed; when metals are spoken of, and directed to be used in the several operations, the nature of the metal is not stated; nor is the electrode with one exception stated, nor whether the desired effects are to be obtained at the so called positive, or at the negative, extremity of the battery. The minute description of all these points would be essential to the carrying out of any of the intended processes. Being well acquainted with such details, I have endeavored to supply the omission, so as, to the best of my judgment, to carry out what seems to have been the object and intention of Mr. Morse. I must, however, further observe that, independent of the unsatisfactory and imperfect description of the process, the substances specified, and about which there can be no mistake, are of such a nature as are not calculated to attain the desired end. I have, however, submitted them to the careful examination of practical chemists, and with the following results:

The substances belonging to class *A* of the specification, are said to produce a colored mark upon certain materials under the action of electricity, viz:

1st. Iodide of tin in salution.

2d. Extract of nutgalls and sulphate of iron in solution, making an ink, which colors white materials grey.

3d. Acetate of lead and nitrate of potash in solution.

4th. Iodide of potassium in solution.

In the use of all these the direction of the electric current, about which nothing is said in the specification, except by arrows, materially influences the results; but it is not necessary to go into the details of the experiments, inasmuch as process 1 and 2, in which iodine is used, give, as might have been anticipated, very imperfect and unsatisfactory results, and any marks which are obtained are *fugitive*, and therefore quite inapplicable to the intended purpose. Process 3, in which a mixture of nitrate of potash and acetate of lead is used, is quite ineffectual. Process 2 answers to a certain extent, when cautiously conducted; but every thing depends upon the direction of the electric currents and the strength of the solution; and as these matters are not touched upon by the would-be patentee, the process would probably altogether fail. The substances in class *B* are stated to color the paper, &c., so that it is afterwards bleached by the electric action. These are:

1st. Iodide of tin.

2d. Iodine dissolved in alcohol, and sulphate of soda.

These are found perfectly ineffectual, in consequence of altogether failing, shortly after the operation. In class *C* are included salts that

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produce a mark upon metal through the intervening cloth, or other material, under the action of electricity. These are:

1st. Sulphate of copper in solution.

2d. Chloride of zinc diluted with water.

3d. Sulphate of iron in solution, to which muriate of lime is afterwards applied.

With regard to the first, (sulphate of copper,) it follows of course, that metallic copper will be precipitated from it upon any electro-*negative* surface, and such effect may, in certain cases, obtain the object of this class. But upon certain metals copper is precipitated independent of any electric action, by ordinary chemical affinity.

So that, as neither the direction of the electric current, nor the particular metal requisite, is specified, the whole process is too uncertain to be available. With chloride of zinc, and No. 2, zinc is precipitated at the negative pole *only*. With sulphate of iron and muriate of lime, applied as the specification directs, iron, or black oxide, separates at the negative pole *only*, and produces an imperfect and inadequate effect.

The accompanying examples show the results, as relates to classes *A* and *B;* and in reference to class *C*, they are the prepared papers, which were placed over the metallic plates, on which we operated.

In his pending application, Mr. Morse has not brought forward any evidence to show an actual use, nor does any of his testimony meet the fact, that the marking of chemically prepared fabrics by the electric current, was patented and published by Davy in 1838, though the publication of Mr. Vail, in 1845, shows the fact distinctly.

But there is also the fact that the specification of 1848 employs the very platinum wheel described and shown by Davy, and the following facts may be urged against any issue of the patent on that specification:

First. That the wheel will not mark dots at all.

Second. That the specification does not show, or give any indications of the proportions in which the chemical solutions are mixed.

Third. When metals are used instead of other fabrics, the nature of the metal is not stated.

Fourth. It is not described or shown, whether the desired effect is to be obtained at the positive or negative wire of the battery; that is to say, whether the current enters above the fabric or beneath it.

Fifth. With one exception, hereafter noted, all the substances named by Mr. Morse, as applicable to form *permanent* marks on fabrics by the electric current, either fade immediately, are ineffectual and unsatisfactory, or imperfect, or are acted on from the negative wire of the battery only.

Sixth. The only mixture that answers at all, does so only to a limited extent, that is dependent on the strength of the solution and the direction of the current, and these are not set forth by Mr. Morse.

Seventh. No mechanical means are described and shown by which marks can be made on metals.

Eighth. No means are described or shown by which marks can be

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made on thread; and the question naturally arises, how can a thread be retained under a thin edged metallic roller?

From all these causes the following conclusions arise:

Fi st. That Mr. Morse has not completed or carried out to perfection any part of his alleged invention. Or

Second. That he has not fully described the same in the manner prescribed by law.

Third. That he claims as his own invention, and seeks to appropriate to his own use, the substantial parts of contrivances and processes invented by others, and in use long before his application for a patent. That the supposed interference, between Mr. Morse and myself, may be now clearly and fully before you, the defects of the system used in the United States will now be stated, and followed by a reference to the means used by me for remedying those defects, and which were patented by me in London, in 1843 and 1846.

The telegraph now used in America consists—

First. Of a long circuit, formed by a metallic wire, a galvanic battery, an electro magnet, and the whole length of ground that intervenes between the extreme ends of the telegraphic line.

Second. Of local circuits, placed at the telegraph stations to record the signals; these are dependent for their action on the long telegraphic circuit; the local circuits are each composed of a metallic wire, a galvanic battery, and an electro magnet; and, according to this system, the local circuits are indispensable, because electric currents that are powerful enough to make indentations on paper cannot be transmitted through the long circuit.

It cannot but be evident that a method by which the local or secondary circuits are dispensed with, and which method simply was the current of the long circuit, and without magnets to record the signs, will greatly simplify the operation, and be less liable to derangement and disorder.

By my inventions, shown in my English patents of 1843 and 1846, I have fully effected this object, of recording the signs by the currents of the long telegraphic circuit alone, thereby dispensing with the local and secondary circuits and the magnets; this is the invention, on which the interference is declared by the Patent department. In Mr. Morse's specification I do not find the remotest resemblence to my invention, as specified in my English patents above referred to, or in my application here. In the first place, there is not a word of reference to a long telegraphic circuit; the drawing shows the mere rudiments only of a machine to be worked by a short local circuit within the walls of a room, and not by a circuit conducted to a distant station; and allowing the current to return, as is now well understood, compared with my invention, this becomes a mere toy.

Mr. Morse has not proved that he has done any thing that enables him to use his alleged invention by means that are his own. Instead of inventing some suitable marking style, he has set forth the platinum edged wheel of Davey in 1838, and he now uses the finger key of Da-

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vey to open and close the electric circuit. He claims making marks by a single circuit, but he confines himself to a circuit of wire.

If he abides by his specification he requires two wires, one by which the current travels from the battery, and the other by which it returns back to the battery; he does not refer to the fact that the earth can be made one-half the circuit, and as he has not shown how his single circuit is composed, he manifestly confines himself to a circuit of two wires.

My improvements on the electric telegraph are, that so early as 1843 I discovered a chemical compound, so sensitive, that it marked *permanently* by the *feeble* electric currents that will pass through long telegraphic circuits; and I, in that year, invented and patented a telegraph, to be worked by the single and simple telegraphic circuits, composed of the battery, the earth, the wires, the chemically prepared paper, and the subject to be transmitted.

What proof has Mr. Morse brought forward to show that he has done any thing like this, even to this day? NNONE.

Since 1843 I have gone on in improving the invention, and applying it in various ways, as will be seen by referring to my English and other foreign patents. I have improved it in all the details of the machinery. I have improved the sensitiveness of the chemically prepared paper, and without injuring the texture of the paper, and without lessening the permanency of the mark; and I have greatly improved the style which makes the marks; all of which has cost much thought, time, and money, but the value of which to the public will be very great, as it is by the combined effects of these improvements that I am now able to send on from the transmitting to the receiving stations, and *permanently* record, from fifty to one thousand letters per minute.

The points at issue are, has Mr. Morse, at this time, his invention in a state to transmit and record, *permanently*, marks that can be referred to and read at any future period of time? Does he do this by the direct action of currents of electricity passing through a long telegraph line? I submit that he shows no affirmative proof of this whatever.

On the contrary, my English patent of 1843 shows, absolutely, that I did much of this at that time; and my English patent of 1846 shows improvements, both on the machinery and chemicals used in 1843. And my pending and disputed application now before you shows the concentration of these inventions, with yet further important improvements in the machinery and chemicals employed, as is stated in both my applications and my specification. All of which is now submitted, as proving me to be the "*original and first inventor*," instead of Mr. Morse, of the part in dispute. I would now add, that if Mr. Morse contests my statements as regards the uselessness of his chemical compounds, I stand ready and prepared, on a full and proper arrangement, to go into an effectual trial of those compounds for such purposes.

It may be proper to close this already long document, by stating that, when I made my application in April last, I did not so fully understand

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the American law on patents as I now do, and my agent did not then know of my English patent of 1843, otherwise, my pending application would have been based on both these patents, instead of the last; and I do now seek to have this done, not merely to prove priority of invention, but to comply with what I now understand to be the law of the United States upon this point.

I do, therefore, respectfully ask to have my patent, dated 27th of May, 1843, (an authenticated copy of which is hereby filed and marked A,) together with my patent of 12th of December, 1846, (an authenticated copy of which is also filed and marked B,) made the basis of my present application, instead of the letter alone.

As matter to be referred to in explanation, I also file herewith the patents of importation and direct patent, granted by the French and Belgian Governments for the same invention.

All of which is respectfully submitted.

ALEXANDER BAIN.

WASHINGTON, D. C, *August 26th*, 1848.

2673. Examined, W. H. S.

Argument by Mr. Alexander Lawrence, with an appendix, containing the testimony of Bloodgood, Munson, and young Morse.

In the matter of the interference declared by the Commissioner of Patents, and the respective applications of S. F. B. Morse and Alexander Bain, each for a patent on electric telegraphs.

Statement of the case.

On the 20th day of January, 1848, Mr. Morse, an American citizen, filed an application, with specification attached, in the Patent office, for improvement in the electric telegraph.

In January or February, 1847, Mr. Morse filed a caveat, setting forth (as we suppose) the design, purpose, and distinguishing characteristics, and praying protection of his right till he should have matured his invention.

On the day of April, 1848, Mr. Bain, a British subject, filed an application and specification, and drawings attached, for a patent for improvement in the electric telegraph.

On the 22d of April, 1848, Mr. Bain received notice from the Commissioner of Patents, that "his application had been adjudged to interfere with the application of Morse, and that a hearing would be granted to the parties on the first Monday of July, then next." The hearing was adjourned (after every opposition by Mr. Morse) to Monday, the 28th day of August, 1848. Thus the matter rests in the Patent office. The nature of Mr. Morse's alleged invention, as stated in the specification, is:

First, in the application of the decomposing effects of electricity, produced from any known generator of electricity, to the marking

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alphabetic, or other signs, for numerals, or letters, or words, or sentences, through a single circuit of electric conductors, by which intelligence may be communicated, marked on cloth, metals, or other convenient materials.

Second, in the mode of applying this decomposition, and the machinery for that purpose.

Third, in the application of the bleaching qualities of electricity to the printing of any desired characters.

He then states, under three classes, A, B, and C, the different substances composing the solutions necessary to prepare the paper, thread, or other material, for marking by electricity, and he concludes, by stating his claim, as follows:

"What I claim as of my own invention and improvement, and desire to secure by letters patent, is:

"The use of a *single circuit* of conductors, for the marking of my telegraphic signs, already patented, for numerals, letters, words, or sentences, by means of the decomposing, coloring, or bleaching effects of electricity, acting upon any known salts that leave a mark as the result of the said decomposition upon paper, cloth, metals, or other convenient and known markable material.

"I also claim the invention of the machinery, as herein described, for the purpose of applying the decomposing, coloring, or bleaching effects of electricity, acting upon any known salts, as herein before described."

2. The application of Mr. Bain contains three claims, embracing one principal invention, and being accessory and auxiliary to the principal subject. The third or last claim in the specification, is the only one which has been adjudged to interfere with the application of Morse; it is as follows:

"Third, the application of any suitable chemically-prepared paper, without regard to the chemical ingredients used for such purpose, to receive and record signs forming communications, such signs being made by the pulsations of an electric current or currents, transmitted from a distant station; said current operating directly and without the intervention of any secondary current or mechanical contrivance, through a suitable metal marking style, that is in a continuous contact with the receiving paper, thereby marking marks thereon, which marks correspond with the groups of perforation in the paper comprising the transmitted communication, and which marks form the received communication, substantially in the manner and with the effects described and shown, including any merely practical and mechanical variation, analogous and equivalent to the means employed and the effects produced thereby."

The immediate question in issue is priority of invention, or which of the parties is the first and original inventor of the subject-matter in dispute.—"Vide *other positions taken*."

To sustain priority of invention, by Mr. Morse, he has examined three witnesses.—Vide copy testimony annexed, marked A. This testimony

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cannot be deemed of much weight. Bloodgood and Munson simply show that Mr. Morse, from 1832 to 1835, has been experimenting in chemicals without the production of any practical result; that he had a mere conception or intellectual idea. C. W. Morse says, that in September, 1846, he saw an instrument dissimilar to any he had ever seen in the arrangement of its marking the characters.

He describes the mode of marking, but he concludes by testifying that the conception or idea of his father was not perfected at that time. Kent merely proves the purchase of chemicals by Morse in November, 1846. This is the only testimony on the part of Morse to show priority of invention. His son, C. F. Morse, is the only witness whose testimony can be deemed of any worth. He brings down the date of the invention to September, 1846, as it then was "not perfected."

In the month of January, 1847, 4 months after the time mentioned in the testimony of C. F. Morse, the caveat was filed.

The 12th section of the act of 1836 defines the object and use of a caveat.

There are few instances in which a caveat is useful. One is, when the invention is still undergoing experiment, and the experiment has to be made public, and thus risk the imparting the ideas of the inventor to others. Another is, that it is a record of date.

The filing of this caveat is evidence of the incompleteness of Mr. Morse's alleged invention, in January, 1847, and that he required further time to mature the same. If then complete, the law supposed him ready for his patent.

In the preamble of Morse's specification he says: "In October, 1832, I conceived the idea of marking the telegraphic signs I had invented (being dots and spaces, to signify numerals) by electrical decomposition of certain salts and chemical compounds, &c., *which thought was soon after suspended in my mind by another method, at that time conceived*, of marking the said signs by magnetism, produced by electricity, which is the successful method now in use; and having *recently recurred* to my original thought of applying decomposition by electricity, through a single circuit of conductors, and discovered a means of successfully applying the same," &c.

Here is an admission that the "idea, or thought," of 1832 was suspended, and only "recently referred to;" thus showing that not until recently did Mr. Morse recur to his old idea for the purpose of completing his alleged original conception.

The existing laws in the United States in relation to patents are the acts of July 4, 1836, March 3, 1837, March 3, 1839, and August 29, 1842. The law of July 4, 1836, repealed all former laws.

The period referred to for testing the novelty of the invention is not the date of the application for the patent, *but of the invention*. The English and American law differs on this point. In England, the inventor is not supposed to have any right in his invention until the grant of the patent. In the United States, the law supposes him to have a right at the time of the invention. Thus, in the present case, the time

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or date of Mr. Morse's alleged invention becomes important for a just decision on the point of priority.

The 6th section of the act of July 4, 1836, points out the subject of patents, how the specifications must be made—the drawing specimens and models. The decisions as to what is practicable show that a science is not the subject of a patent; a mere theory, scientific axiom or principle, or abstract proposition or truth, is not so.—Lowell *vs.* Lewis, 1. Mason R., 187.

A merely intended invention is not patentable. A party cannot anticipate protection before he is entitled to it by practical accomplishment.—2 H. Bl., 479.

The subject of a patent must be something that has been reduced to practice. It is not enough that it has been practicable or possible: it must be something which has been actually done or produced. Judge Story says, the thing to be patented is not a mere elementary principle, or intellectual discovery, but a principle put in practice, and applied to some art, machine, manufacture or composition of matter.—Earl *vs.* Sawyer, 4 Mason, 1.

This is the doctrine in all the cases.

It appears, then, from all the books, that the law does not regard a mere conception, imagination, or intellectual process, as the subject matter of a patent, independently of its reduction to use. To lay a foundation for a patent, something must be wrought, done, or produced.

In deciding the question of priority of invention, the question of priority is not limited to mere conception, but to the invention, as explained in the decision of Story, in Earl *vs.* Sawyer.

Mr. Morse, therefore, cannot go behind the time specified by himself in his application, and certainly not farther back than the date of his caveat, in January, 1847; for up to that period he has shown no invention, and nothing other than a conception, or imagination, or thought, to which, "recently," (shortly prior to 20th January, 1848,) he directed his attention.

The 7th section of the act of 4th July, 1836, explains and points out the duty of the Commissioner. Upon the filing of the application, that officer shall cause to be made an examination of the alleged new invention; and if it shall appear that the same has been invented or discovered by any other person in this country, prior to the alleged invention or discovery thereof by the applicant, or if it had been *patented* or described in any printed publication, in this or any foreign country, or had been in public use, or on sale, with the applicant's consent or allowance, prior to the application, if the Commissioner shall deem it sufficiently useful and important, it shall be his duty to issue a patent therefor.

Under this section, if the thing has been described in any printed publication or patented, whether it has been reduced to practice or not, a patent cannot be granted. The description in a printed publication renders it public property. When the description is given in a printed

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publication, it ceases to be patentable, and as stated by Justice Marshall in Evans *vs.* Eaton, 3 Wheaton, 454, "if the patentee had no knowledge of the previous description, still the patent is void; the law supposes he knew it."

The English and French law is the same on this point. Renourd's Traité des Brevets d'Invention, C. 5, § 1, p. 176.

As laid down by M. Renourd, a description must give such information as would serve as a direction for the making, compounding, &c., the thing to which the description relates.

After a careful perusal of Mr. Morse's specification, I cannot discover the extent of his application. It appears to me uncertain whether or not he claims a patent for the composition of matter as stated by him in "class A, B, and C;" but he distinctly claims "the use of a single circuit of conductors, giving signals by chemical decomposition under electric action."

On the day of May, 1843, Mr. Bain obtained a patent for a similar invention in England. Vide his English patent duly authenticated.

Objections may be interposed by Morse and his counsel, that the patent of 1843 is *not similar* to the claim in Morse's specification.

The law does not require that the previous patented invention should be the same as the subsequent one. It is sufficient if the distinguishing characters are the same. Dixon *vs.* Myer, 4 Was. C. C. Rep., 68. S. C. Coxe's Digest, 532.

If they operate in the same manner, and produce the same results upon the same principles, it is sufficicient to defeat the subsequent claim. Gray & Osgood *vs.* James, 1 Pet. C. C. R., 394.

It is true that, by the law of 1836, proof of prior invention in any foreign country, when the invention has not been patented nor described in any printed publication, is not a good defence. In the present case, the invention as claimed by Morse was patented as before stated by Mr. Bain in May, 1843.

Now, the question arises, is the claim of Mr. Morse "for *a single circuit of conductors*," as stated in his specification, similar to the Bain patent of 1843, and are the distinguishing characters the same?

For this point, vide explanation marked B. In December, 1846, Mr. Bain took out another patent in England for certain improvements on the patent of 1843, and in this patent of 1846, like the one of 1843, the single *circuit* of *conductors* is a principal feature of the invention. Vide description and explanation, marked C.

In both of the patents of 1843 and 1846 Mr. Bain refers to the use of certain chemicals necessary to be used for the chemically prepared paper to receive the impression, but in neither of his patents does he claim the invention of any "composition of matter," for the purpose of preparing paper or substance to receive the impression. Mr. Bain in specification annexed to his patents, mentions and specifies certain chemicals, "which he prefers," but although he fully and explicitly refers to the chemically prepared substance, and to the chemicals used,

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still he makes no claim to the invention, because the invention belonged to another. Vide Vail's American Electro-Magnetic Telegraph, published in 1845, page 187 to 199, inclusive.

Had no application been made for a patent by Bain, and had there been no alleged interference, Mr. Morse is not entitled to a patent for any of the alleged inventions in his specification, and the Commissioner should refuse to issue a patent.

The sixth [section] of the act of July, 1836, defines what a specification should contain. It should be a "' description of the invention or discovery, and of the manner or process of making, constructing, using, and compounding the same in such full, clear, and exact terms, as to enable any person skilled in the art or science to which it appertains, or with which it is most nearly connected, to make, construct, compound, and use the same," " and in case of a machine, he shall fully explain the principle and the several modes in which he has contemplated the application of that principle, or character, by which it may be distinguished from other inventions, and shall particularly specify and point out the part, improvement, or combination which he claims as his own invention, &c." Vide 6th section act 4th July, 1836.

Here are all the instructions given respecting the specification. In the preparation of the specification all these must be observed with accuracy. It is true, that the 7th section of the same act gives the Commissioner the power to decide upon the sufficiency of the specification; but still, in the discharge of *his* duty, he is bound to reject any application for a patent where the specification is not in accordance with the requirements of the law. He should scrutinize it and see whether the inventor has deceived the public, either by holding back some part of his invention, or by not giving that ample description which the act says " shall be in *full*, *clear*, and *exact* terms, so that the whole process may be made by any one *skilled* in the art to which it appertains; and if there can be found *no one* practising the art, it must be so clear as to enable *any* in any art most nearly connected. If the specification is defective in any of the particulars, the Commissioner should reject the application. It is true that the 7th section of the same act gives the applicant, in case of an adverse decision by the Commissioner, the power and right to withdraw his application and renew the same, and to alter his specification so that it will embrace only that part of the discovery which is *new*. It is to be presumed that, in the case of the application of Mr. Morse, the Commissioner will comply with the requirements of the first clause of the 7th section of the act of July, 1836, by causing to be made the examination required by the act. Will it on such examination appear to the Commissioner, that the new invention of Mr. Morse has not been discovered or invented by any other person in this country, prior to the alleged invention or discovery of the applicant, or that it had not been patented or described in any printed publication in this or any foreign country, will he deem it sufficiently useful and important? If he does, it was his duty to grant a patent therefor. The question is fully answered by reference to Bain's English patent of May,

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1843, and December, 1846. His French patent of subsequent dates, and his Belgian patent of 1844. And if Morse *had* obtained a patent, which had been infringed, in an action for such infringement the patent would be declared void, owing to the defects of his specification and the non-compliance with the statute.

The Supreme Court of the United States have decided that it is not necessary, in case of an imperfect specification, for the jury to believe, before giving a verdict for defendants, that the imperfections arose from design, or a desire to deceive the public. Grant and al. *vs.* Raymond, 6 Peters, 218.

The alleged invention of Mr. Morse, as spread out in his specification and drawing, may not appear to be substantially the same as Mr. Bain's, but it is a principle of law, applicable to patents, that the sufficiency of the invention depends upon its being diverse and distinguishable from what is familiar and *already* known—that is, substantially and materially diverse and distinguishable, not *slightly* and trivially so. This requisite of an invention is sometimes expressed to be a difference in principle. What constitutes a difference in principle between two machines is frequently a question of difficulty, more especially if the difference in principle is considerable, and the machine very complicated. But we think it may be safely laid down as a general rule, that where the machines are substantially the same, and operate in the same manner to produce the same result, they must be in principle the same. I say substantially, to exclude all formal differences; and when I speak of the same result, I must be understood as meaning the same kind of result, though it may differ in extent. So that the result is the same, according to this definition, whether the one produces more nails (for instance) in a given space of time than the other, if the operation is to make nails."—Gray and Osgood *vs.* James. Peters' C. C. R., 396.

A patent for an improvement in dressing woollen cloth by damping it with steam instead of wetting it with hot water, according to the former practice, was held by Lord Tenderdon to be void, on the ground that it was not a sufficient change from the former practice to constitute an invention.

Authorities. Woodcock *vs.* Parker and al., 1 Gall. C. C. R., 435.

Application does not plainly point out what Morse claims.—Vide Barrett and al. *vs.* Hall and al., 1 Mason, C. C. R., 447.

Moody *vs. Fisk and al.*, 2 Mason, C. C. R., 112.

Morse must be the original inventor in relation to the whole world.—Rutyen *vs.* Ranowers and al., 1 Wash., C. C. R., 168.

Dawson *vs.* Follen, 2 Wash., C. C. R., 311.

The invention must be practicable and explicable; and referable to something which may prove to be useful.—Evans *vs.* Eaton, Peters, 322.

In the matter of the interference declared by the Commissioner of Patents on the respective application of S. F. B. Morse and Alexander Bain, each for a patent on electric telegraphs.

S. D. W. Bloodgood. I have been exceedingly intimate with Morse

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It is, therefore, hereby decided, that said S. F. B. Morse is the first and original inventor of the aforesaid alleged improvement in telegraphs, and as such is entitled to receive a patent therefor.

EDMUND BURKE,
Commissioner of Patents.

PATENT OFFICE, *October* 24, 1848.

3744. Examined, W. H. S.

PATENT LAWS.

AN ACT to promote the progress of Useful Arts, and to repeal all acts and parts of acts heretofore made for that purpose.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there shall be established and attached to the Department of State an office to be denominated the Patent office, the chief officer of which shall be called the Commissioner of Patents, to be appointed by the President, by and with the advice and consent of the Senate, whose duty it shall be, under the direction of the Secretary of State, to superintend, execute, and perform all such acts and things touching and respecting the granting and issuing of patents for new and useful discoveries, inventions, and improvements, as are herein provided for, or shall hereafter be, by law, directed to be done and performed, and shall have charge and custody of all the books, records, papers, models, machines, and all other things belonging to said office. And said Commissioner shall receive the same compensation as is allowed by law to the Commissioner of the Indian department, and shall be entitled to send and receive letters and packages by mail, relating to the business of the office, free of postage.

SEC. 2. *And be it further enacted*, That there shall be in said office an inferior officer, to be appointed by the said principal officer, with the approval of the Secretary of State, to receive an annual salary of seventeen hundred dollars, and to be called the chief clerk of the Patent office, who, in all cases during the necessary absence of the Commissioner, or when the said principal office shall become vacant, shall have the charge and custody of the seal, and of the records, books, papers, machines, models, and all other things belonging to the said office, and shall perform the duties of Commissioner during such vacancy. And the said Commissioner may also, with like approval, appoint an examining clerk, at an annual salary of fifteen hundred dollars; two other clerks, at twelve hundred dollars each, one of whom shall be a competent

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draughtsman; one other clerk, at one thousand dollars; a machinist at twelve hundred and fifty dollars; and a messenger, at seven hundred dollars. And said Commissioner, clerks, and every other person appointed and employed in said office, shall be disqualified and interdicted from acquiring or taking, except by inheritance, during the period for which they shall hold their appointments, respectively, any right or interest, directly or indirectly, in any patent for an invention or discovery which has been, or may hereafter be, granted.

SEC. 3. *And be it further enacted*, That the said principal officer, and every other person to be appointed in the said office, shall, before he enters upon the duties of his office or appointment, make oath or affirmation truly and faithfully to execute the trust committed to him. And the said Commissioner and the chief clerk shall also, before entering upon their duties, severally give bonds, with sureties, to the Treasurer of the United States, the former in the sum of ten thousand dollars, and the latter in the sum of five thousand dollars, with condition to render a true and faithful account to him or his successor in office, quarterly, of all moneys which shall be by them respectively received for duties on patents, and for copies of records and drawings, and all other moneys received by virtue of said office.

SEC. 4. *And be it further enacted*, That the said Commissioner shall cause a seal to be made and provided for the said office, with such device as the President of the United States shall approve; and copies of any records, books, papers, or drawings, belonging to the said office, under the signature of the said Commissioner, or, when the office shall be vacant, under the signature of the chief clerk, with the said seal affixed, shall be competent evidence in all cases in which the original records, books, papers, or drawings, could be evidence. And any person making application therefor may have certified copies of the records, drawings, and other papers deposited in said office, on paying, for the written copies, the sum of ten cents for every page of one hundred words; and for copies of drawings, the reasonable expense of making the same.

SEC. 5. *And be it further enacted*, That all patents issuing from said office shall be issued in the name of the United States, and under the seal of said office, and be signed by the Secretary of State, and countersigned by the Commissioner of said office, and shall be recorded, together with the descriptions, specifications, and drawings, in the said office, in books to be kept for that purpose. Every such patent shall contain a short description or title of the invention or discovery, correctly indicating its nature and design, and in its terms grant to the applicant or applicants, his or their heirs, administrators, executors, or assigns, for a term not exceeding fourteen years, the full and exclusive right and liberty of making, using, and vending to others to be used, the said invention or discovery, referring to the specifications for the particulars thereof, a copy of which shall be annexed to the patent, specifying what the patentee claims as his invention or discovery.

SEC. 6. *And be it further enacted*, That any person or persons

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having discovered or invented any new and useful art, machine, manufacture, or composition of matter, or any new and useful improvement on any art, machine, manufacture, or composition of matter, not known or used by others before his or their discovery or invention thereof, and not, at the time of his application for a patent, in public use or on sale, with his consent or allowance, as the inventor or discoverer, and shall desire to obtain an exclusive property therein, may make application in writing to the Commissioner of Patents, expressing such desire, and the Commissioner, on due proceedings had, may grant a patent therefor. But before any inventor shall receive a patent for any such new invention or discovery, he shall deliver a written description of his invention or discovery, and of the manner and process of making, constructing, using, and compounding the same, in such full, clear, and exact terms, avoiding unnecessary prolixity, as to enable any person skilled in the art or science to which it appertains, or with which it is most nearly connected, to make, construct, compound, and use the same; and in case of any machine, he shall fully explain the principle, and the several modes in which he has contemplated the application of that principle or character by which it may be distinguished from other inventions; and shall particularly specify and point out the part, improvement, or combination, which he claims as his own invention or discovery. He shall, furthermore, accompany the whole with a drawing or drawings, and written references, where the nature of the case admits of drawings; or with specimens of ingredients, and of the composition of matter, sufficient in quantity for the purpose of experiment, where the invention or discovery is of a composition of matter; which descriptions and drawings, signed by the inventor, and attested by two witnesses, shall be filed in the Patent office; and he shall, moreover, furnish a model of his invention, in all cases which admit of a representation by model, of a convenient size to exhibit advantageously its several parts. The applicant shall also make oath, or affirmation, that he does verily believe that he is the original and first inventor or discoverer of the art, machine, composition, or improvement, for which he solicits a patent; and that he does not know or believe that the same was ever before known or used; and also of what country he is a citizen: which oath or affirmation may be made before any person authorized by law to administer oaths.

Sec. 7. *And be it further enacted*, That on the filing of any such application, description, and specification, and the payment of the duty hereinafter provided, the Commissioner shall make, or cause to be made, an examination of the alleged new invention or discovery; and if, on any such examination, it shall not appear to the Commissioner that the same had been invented or discovered by any other person in this country, prior to the alleged invention or discovery thereof by the applicant, or that it had been patented or described in any printed publication in this or any foreign country, or had been in public use or on sale, with the applicant's consent or allowance, prior to the application, if the Commissioner shall deem it to be sufficiently useful and important, it shall

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be his duty to issue a patent therefor. But whenever, on such examination, it shall appear to the Commissioner that the applicant was not the original and first inventor or discoverer thereof, or that any part of that which is claimed as new had before been invented or discovered, or patented, or described in any printed publication in this or any foreign country as aforesaid, or that the description is defective and insufficient, he shall notify the applicant thereof, giving him briefly such information and references as may be useful in judging of the propriety of renewing his application, or of altering his specification to embrace only that part of the invention or discovery which is new. In every such case, if the applicant shall elect to withdraw his application, relinquishing his claim to the model, he shall be entitled to receive back twenty dollars, part of the duty required by this act, on filing a notice in writing of such election in the Patent office; a copy of which, certified by the Commissioner, shall be a sufficient warrant to the Treasurer for paying back to the said applicant the said sum of twenty dollars. But if the applicant, in such case, shall persist in his claims for a patent, with or without any alteration of his specification, he shall be required to make oath or affirmation anew, in manner as aforesaid; and if the specification and claim shall not have been so modified as, in the opinion of the Commissioner, shall entitle the applicant to a patent, he may, on appeal, and upon request in writing, have the decision of a board of examiners, to be composed of three disinterested persons, who shall be appointed for that purpose by the Secretary of State, one of whom, at least, to be selected, if practicable and convenient, for his knowledge and skill in the particular art, manufacture, or branch of science to which the alleged invention appertains; who shall be under oath or affirmation for the faithful and impartial performance of the duty imposed upon them by said appointment. Said board shall be furnished with a certificate in writing of the opinion and decision of the Commissioner, stating the particular grounds of his objection, and the part or parts of the invention which he considers as not entitled to be patented. And the said board shall give reasonable notice to the applicant, as well as to the Commissioner, of the time and place of their meeting, that they may have an opportunity of furnishing them with such facts and evidence as they may deem necessary to a just decision; and it shall be the duty of the Commissioner to furnish to the board of examiners such information as he may possess relative to the matter under their consideration. And on an examination and consideration of the matter by such board, it shall be in their power, or of a majority of them, to reverse the decision of the Commissioner, either in whole or in part; and their opinion being certified to the Commissioner, he shall be governed thereby in the further proceedings to be had on such application: *Provided, however*, That, before a board shall be instituted in any such case, the applicant shall pay to the credit of the Treasury, as provided in the ninth section of this act, the sum of twenty-five dollars; and each of said persons so appointed shall be entitled to receive, for his services, in each case, a sum not exceeding ten dollars, to be determined

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and paid by the Commissioner out of any moneys in his hands, which shall be in full compensation to the persons who may be so appointed, for their examination and certificate as aforesaid.

SEC. 8. *And be it further enacted*, That whenever an application shall be made for a patent, which, in the opinion of the Commissioner, would interfere with any other patent for which an application may be pending, or with any unexpired patent which shall have been granted, it shall be the duty of the Commissioner to give notice thereof to such applicants, or patentees, as the case may be; and if either shall be dissatisfied with the decision of the Commissioner on the question of priority of right or invention, on a hearing thereof, he may appeal from such decision, on the like terms and conditions as are provided in the preceding section of this act, and the like proceedings shall be had, to determine which, or whether either, of the applicants is entitled to receive a patent as prayed for. But nothing in this act contained shall be construed to deprive an original and true inventor of the right to a patent for his invention, by reason of his having previously taken out letters patent therefor in a foreign country, and the same having been published at any time within six months next preceding the filing of his specification and drawings. And whenever the applicant shall request it, the patent shall take date from the time of filing the specifications and drawings, not, however, exceeding six months prior to the actual issuing of the patent; and on like request, and the payment of the duty herein required, by any applicant, his specification and drawings shall be filed in the secret archives of the office, until he shall furnish the model, and the patent be issued, not exceeding the term of one year—the applicant being entitled to notice of interfering applications.

SEC. 9. *And be it further enacted*, That, before any application for a patent shall be considered by the Commissioner as aforesaid, the applicant shall pay into the Treasury of the United States, or into the Patent office, or into any of the deposite banks, to the credit of the Treasury, if he be citizen in the United States, or an alien, and shall have been resident in the United States for one year next preceding, and shall have made oath of his intention to become a citizen thereof, the sum of thirty dollars; if a subject of the King of Great Britain, the sum of five hundred dollars; and all other persons the sum of three hundred dollars; for which payment duplicate receipts shall be taken, one of which to be filed in the office of the Treasurer. And the moneys received into the treasury under this act shall constitute a fund for the payment of the salaries of the officers and clerks herein provided for, and all other expenses of the Patent office, and to be called the Patent fund.

SEC. 10. *And be it further enacted*, That where any person hath made, or shall have made, any new invention, discovery, or improvement, on account of which a patent might by virtue of this act be granted, and such person shall die before any patent shall be granted therefor, the right of applying for and obtaining such patent shall devolve on the executor or administrator of such person, in trust for the heirs-at-law of the deceased, in case he shall have died intestate; but if

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otherwise, then in trust for his devisees, in as full and ample manner, and under the same conditions, limitations, and restrictions, as the same was held, or might have been claimed or enjoyed by such person in his or her lifetime; and when application for a patent shall be made by such legal representatives, the oath or affirmation provided in the 6th section of this act shall be so varied as to be applicable to them.

SEC. 11. *And be it further enacted*, That every patent shall be assignable in law, either as to the whole interest, or any undivided part thereof, by any instrument in writing; which assignment, and also every grant and conveyance of the exclusive right under any patent, to make and use, and to grant to others to make and use, the thing patented within and throughout any specified part or portion of the United States, shall be recorded in the Patent office within three months from the execution thereof, for which the assignee or grantee shall pay to the Commissioner the sum of three dollars.

SEC. 12. *And be it further enacted*, That any citizen of the United States, or alien, who shall have been a resident of the United States one year next preceding, and shall have made oath of his intention to become a citizen thereof, who shall have invented any new art, machine, or improvement thereof, and shall desire further time to mature the same, may, on paying to the credit of the Treasury, in manner as provided in the ninth section of this act, the sum of twenty dollars, file in the Patent office a caveat setting forth the design and purpose thereof, and its principal and distinguishing characteristics, and praying protection of his right till he shall have matured his invention; which sum of twenty dollars, in case the person filing such caveat shall afterwards take out a patent for the invention therein mentioned, shall be considered a part of the sum herein required for the same. And such caveat shall be filed in the confidential archives of the office, and preserved in secrecy. And if application shall be made by any other person, within one year from the time of filing such caveat, for a patent of any invention with which it may in any respect interfere, it shall be the duty of the Commissioner to deposite the description, specifications, drawings, and model, in the confidential archives of the office, and to give notice (by mail) to the person filing the caveat of such application, who shall, within three months after receiving the notice, if he would avail himself of the benefit of his caveat, file his description, specifications, drawings, and model; and if, in the opinion of the Commissioner, the specifications of claim interfere with each other, like proceedings may be had in all respects as are in this act provided in the case of interfering applications. *Provided, however*, That no opinion or decision of any board of examiners, under the provisions of this act, shall preclude any person interested in favor of or against the validity of any patent which has been or may hereafter be granted, from the right to contest the same in any judicial court, in any action in which its validity may come in question.

SEC. 13. *And be it further enacted*, That whenever any patent, which has heretofore been granted, or which shall hereafter be granted, shall be inoperative or invalid, by reason of a defective or insufficient

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description or specification, or by reason of the patentee claiming in his specification, as his own invention, more than he had or shall have a right to claim as new, if the error has or shall have arisen by inadvertency, accident, or mistake, and without any fraudulent or deceptive intention, it shall be lawful for the Commissioner, upon the surrender to him of such patent, and the payment of the further duty of fifteen dollars, to cause a new patent to be issued to the said inventor for the same invention, for the residue of the period then unexpired, for which the original patent was granted, in accordance with the patentee's corrected description and specification. And in case of his death, or any assignment by him made of the original patent, a similar right shall vest in his executors, administrators, or assignees. And the patent so reissued, together with the corrected description and specifications, shall have the same effect and operation in law, on the trial of all actions hereafter commenced for causes subsequently accruing, as though the same had been originally filed in such corrected form before the issuing of the original patent. And whenever the original patentee shall be desirous of adding the description and specification of any new improvement of the original invention or discovery, which shall have been invented or discovered by him subsequent to the date of his patent, he may, like proceedings being had in all respects as in the case of original applications, and on the payment of fifteen dollars, as hereinbefore provided, have the same annexed to the original description and specification; and the Commissioner shall certify, on the margin of such annexed description and specification, the time of its being annexed and recorded; and the same shall thereafter have the same effect in law, to all intents and purposes, as though it had been embraced in the original description and specification.

SEC. 14. *And be it further enacted*, That whenever, in any action for damages [for] making, using, or selling the thing whereof the exclusive right is secured by any patent heretofore granted, or by any patent which may hereafter be granted, a verdict shall be rendered for the plaintiff in such action, it shall be in the power of the court to render judgment of any sum above the amount found by such verdict as the actual damages sustained by the plaintiff, not exceeding three times the amount thereof, according to the circumstances of the case, with costs; and such damages may be recovered by action on the case, in any court of competent jurisdiction, to be brought in the name or names of the person or persons interested, whether as patentee, assignees, or as grantees of the exclusive right within and throughout a specified part of the United States.

SEC. 15. *And be it further enacted*, That the defendant in any such action shall be permitted to plead the general issue, and to give this act, and any special matter in evidence, of which notice in writing may have been given to the plaintiff or his attorney thirty days before trial, tending to prove that the description and specification filed by the plaintiff, does not contain the whole truth relative to his invention or discovery, or that it contains more than is necessary to produce the described effect; which concealment or addition shall fully appear to have been made for the purpose of deceiving the public, or that the patentee was not the

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original and first inventor or discoverer of the thing patented, or of a substantial and material part thereof claimed as new, or that it had been described in some public work anterior to the supposed discovery thereof by the patentee, or had been in public use or on sale with the consent and allowance of the patentee before his application for a patent, or that he had surreptitiously or unjustly obtained the patent for that which was in fact invented or discovered by another, who was using reasonable diligence in adapting and perfecting the same; or that the patentee, if an alien at the time the patent was granted, had failed and neglected, for the space of eighteen months from the date of the patent, to put and continue on sale to the public, on reasonable terms, the invention or discovery for which the patent issued; and whenever the defendant relies in his defence on the fact of a previous invention, knowledge, or use of the thing patented, he shall state, in his notice of special matter, the names and places of residence of those whom he intends to prove to have possessed a prior knowledge of the thing, and where the same had been used; in either of which cases judgment shall be rendered for the defendant with costs: *Provided, however,* That whenever it shall satisfactorily appear that the patentee, at the time of making his application for the patent, believed himself to be the first inventor or discoverer of the thing patented, the same shall not be held to be void on account of the invention or discovery, or any part thereof, having been before known or used in any foreign country; it not appearing that the same, or any substantial part thereof, had before been patented or described in any printed publication: *And provided, also,* That whenever the plaintiff shall fail to sustain his action on the ground that in his specification or claim is embraced more than that of which he was the first inventor, if it shall appear that the defendant had used or violated any part of the invention justly and truly specified and claimed as new, it shall be in the power of the court to adjudge and award, as to costs, as may appear to be just and equitable.

Sec. 16. *And be it further enacted,* That whenever there shall be two interfering patents, or whenever a patent or application shall have been refused on an adverse decision of a board of examiners, on the ground that that patent applied for would interfere with an unexpired patent previously granted, any person interested in any such patent, either by assignment or otherwise in the one case, and any such applicant in the other case, may have remedy by bill in equity; and the court having cognizance thereof, on notice to adverse parties, and other due proceedings had, may adjudge and declare either the patents void in the whole or in part, or inoperative and invalid in any particular part or portion of the United States, according to the interest which the parties to such suit may possess in the patent or the inventions patented; and may also adjudge that such applicant is entitled, according to the principles and provisions of this act, to have and receive a patent for his invention, as specified in his claim, or for any part thereof, as the fact of priority of right or invention shall, in any such case, be made to appear. And such adjudication, if it be in favor of the right of such applicant, shall authorize the Commissioner to issue such patent, on his filing a

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copy of the adjudication, and otherwise complying with the requisitions of this act: *Provided, however*, That no such judgment or adjudication shall affect the rights of any person, except the parties to the action, and those deriving title from or under them, subsequent to the rendition of such judgment.

SEC. 17. *And be it further enacted*, That all actions, suits, controversies, and cases arising under any law of the United States, granting or confirming to inventors the exclusive right to their inventions or discoveries, shall be originally cognizable, as well in equity as at law, by the circuit courts of the United States, or any district court having the powers and jurisdiction of a circuit court; which courts shall have power, upon a bill in equity filed by any party aggrieved, in any such case, to grant injunctions, according to the course and principles of courts of equity, to prevent the violation of the rights of any inventor as secured to him by any law of the United States, on such terms and conditions as said courts may deem reasonable: *Provided, however*, That from all judgments and decrees from any such court rendered in the premises, a writ of error or appeal, as the case may require, shall lie to the Supreme Court of the United States, in the same manner, and under the same circumstances, as is now provided by law in other judgments and decrees of circuit courts, and in all other cases in which the court shall deem it reasonable to allow the same.

SEC. 18. *And be it further enacted*, That whenever any patentee of an invention or discovery shall desire an extension of his patent beyond the term of its limitation, he may make application therefor, in writing, to the Commissioner of the Patent office, setting forth the grounds thereof; and the Commissioner shall, on the applicant's paying the sum of forty dollars to the credit of the treasury, as in the case of an original application for a patent, cause to be published in one or more of the principal newspapers in the city of Washington, and in such other paper or papers as he may deem proper, published in the section of country most interested adversely to the extension of the patent, a notice of such application, and of the time and place when and where the same will be considered, that any person may appear and show cause why the extension should not be granted. And the Secretary of State, the Commissioner of the Patent office, and the Solicitor of the Treasury, shall constitute a board to hear and decide upon the evidence produced before them, both for and against the extension, and shall sit for that purpose at the time and place designated in the published notice thereof. The patentee shall furnish to said board a statement, in writing, under oath, of the ascertained value of the invention, and of his receipts and expenditures, sufficiently in detail to exhibit a true and faithful account of loss and profit in any manner accruing to him from and by reason of said invention. And if, upon a hearing of the matter, it shall appear to the full and entire satisfaction of said board, having due regard to the public interest therein, that it is just and proper that the term of the patent should be extended, by reason of the patentee, without neglect or fault on his part, having

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failed to obtain, from the use and sale of his invention, a reasonable remuneration for the time, ingenuity, and expense bestowed upon the same, and the introduction thereof into use, it shall be the duty of the Commissioner to renew and extend the patent, by making a certificate thereon of such extension, for the term of seven years from and after the expiration of the first term; which certificate, with a certificate of said board of their judgment and opinion as aforesaid, shall be entered on record in the Patent office; and thereupon the said patent shall have the same effect in law as though it had been originally granted for the term of twenty-one years; and the benefit of such renewal shall extend to assignees and grantees of the right to use the thing patented, to the extent of their respective interests therein: *Provided, however,* That no extension of a patent shall be granted after the expiration of the term for which it was originally issued.

SEC. 19. *And be it further enacted,* That there shall be provided, for the use of said office, a library of scientific works and periodical publications, both foreign and American, calculated to facilitate the discharge of the duties hereby required of the chief officers therein, to be purchased under the direction of the Committee of the Library of Congress. And the sum of fifteen hundred dollars is hereby appropriated for that purpose, to be paid out of the Patent fund.

SEC. 20. *And be it further enacted,* That it shall be the duty of the Commissioner to cause to be classed and arranged, in such rooms or galleries as may be provided for that purpose, in suitable cases, when necessary for their preservation, and in such manner as shall be conducive to a beneficial and favorable display thereof, the models and specimens of compositions and of fabrics, and other manufactures and works of art, patented or unpatented, which have been, or shall hereafter be, deposited in said office. And said rooms or galleries shall be kept open during suitable hours for public inspection.

SEC. 21. *And be it further enacted,* That all acts and parts of acts heretofore passed on this subject, be, and the same are hereby, repealed: *Provided, however,* That all actions and processes in law or equity, sued out prior to the passage of this act, may be prosecuted to final judgment and execution, in the same manner as though this act had not been passed, excepting and saving the application to any such action of the provisions of the fourteenth and fifteenth sections of this act, so far as they may be applicable thereto: *And provided, also,* That all applications for petitions for patents, pending at the time of the passage of this act, in cases where the duty has been paid, shall be proceeded with and acted on in the same manner as though filed after the passage thereof.

JAMES K. POLK,
Speaker of the House of Representatives.
W. R. KING,
President of the Senate pro tempore.

Approved July 4, 1836.

ANDREW JACKSON.

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AN ACT in addition to the act to promote the progress of science and useful arts.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That any person who may be in possession of, or in any way interested in, any patent for an invention, discovery, or improvement, issued prior to the fifteenth day of December, in the year of our Lord one thousand eight hundred and thirty-six, or in an assignment of any patent, or interest therein, executed and recorded prior to the said fifteenth day of December, may, without charge, on presentation or transmission thereof to the Commissioner of Patents, have the same recorded anew in the Patent office, together with the descriptions, specifications of claim, and drawings annexed or belonging to the same; and it shall be the duty of the Commissioner to cause the same, or any authenticated copy of the original record, specification, or drawings, which he may obtain, to be transcribed and copied into books of record to be kept for that purpose; and wherever a drawing was not originally annexed to the patent and referred to in the specification, any drawing produced as a delineation of the invention, being verified by oath in such manner as the Commissioner shall require, may be transmitted and placed on file, or copied as aforesaid, together with certificate of the oath; or such drawings may be made in the office, under the direction of the Commissioner, in conformity with the specification. And it shall be the duty of the Commissioner to take such measures as may be advised and determined by the Board of Commissioners provided for in the fourth section of this act, to obtain the patents, specifications, and copies aforesaid, for the purpose of being so transcribed and recorded. And it shall be the duty of each of the several clerks of the judicial courts of the United States to transmit, as soon as may be, to the Commissioner of the Patent office, a statement of all the authenticated copies of patents, descriptions, specifications, and drawings of inventions and discoveries made and executed prior to the aforesaid fifteenth day of December, which may be found on the files of his office; and also to make out and transmit to said Commissioner, for record as aforesaid, a certified copy of every such patent, description, specification, or drawing, which shall be specially required by said Commissioner.

SECTION 2. *And be it further enacted*, That copies of such record and drawings, certified by the Commissioner, or, in his absence, by the chief clerk, shall be prima facie evidence of the particulars of the invention and of the patent granted therefor in any judicial court of the United States, in all cases where copies of the original record or specification and drawings would be evidence, without proof of the loss of such originals; and no patent issued prior to the aforesaid fifteenth day of December shall, after the first day of June next, be received in evidence in any of the said courts in behalf of the patentee or other person who shall be in possession of the same, unless it shall have been so recorded anew, and a drawing of the invention, if separate from the patent, verified as aforesaid, deposited in the Patent office; nor shall any written assignment of any such patent, executed and recorded prior to the said

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fifteenth day of December, be received in evidence in any of the said courts in behalf of the assignee or other person in possession thereof, until it shall have been so recorded anew.

SECTION 3. *And be it further enacted*, That, whenever it shall appear to the Commissioner that any patent was destroyed by the burning of the Patent office building on the aforesaid fifteenth day of December, or was otherwise lost prior thereto, it shall be his duty, on application therefor by the patentee or other person interested therein, to issue a new patent for the same invention or discovery, bearing the date of the original patent, with his certificate thereon, that it was made and issued pursuant to the provisions of the third section of this act, and shall enter the same of record: *Provided, however*, That before such patent shall be issued, the applicant therefor shall deposite in the Patent office a duplicate, as near as may be, of the original model, drawings, and descriptions, with specifications of the invention or discovery, verified by oath, as shall be required by the Commissioner; and such patent and copies of such drawings and descriptions, duly certified, shall be admissible as evidence in any judicial court of the United States, and shall protect the rights of the patentee, his administrators, heirs, and assigns, to the extent only in which they would have been protected by the original patent and specification.

SECTION 4. *And be it further enacted*, That it shall be the duty of the Commissioner to procure a duplicate of such of the models destroyed by fire on the aforesaid fifteenth day of December, as were most valuable and interesting, and whose preservation would be important to the public, and such as would be necessary to facilitate the just discharge of the duties imposed by law on the Commissioner in issuing patents, and to protect the rights of the public and of patentees in patented inventions and improvements: *Provided*, That a duplicate of such models may be obtained at a reasonable expense: *And provided, also*, That the whole amount of expenditure for this purpose shall not exceed the sum of one hundred thousand dollars. And there shall be a temporary board of commissioners, to be composed of the Commissioner of the Patent office and two other persons to be appointed by the President, whose duty it shall be to consider and determine upon the best and most judicious mode of obtaining models of suitable construction; and, also, to consider and determine what models may be procured in pursuance of, and in accordance with, the provisions and limitations in this section contained. And said commissioners may make and establish all such regulations, terms, and conditions, not inconsistent with law, as in their opinion may be proper and necessary to carry the provisions of this section into effect, according to its true intent.

SECTION 5. *And be it further enacted*, That, whenever a patent shall be returned for correction and re-issue, under the thirteenth section of the act to which this is additional, and the patentee shall desire several patents to be issued for distinct and separate parts of the thing patented, he shall first pay, in manner and in addition to the sum provided by that act, the sum of thirty dollars for each additional patent so to be is-

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sued: *Provided, however*, That no patent made prior to the aforesaid fifteenth day of December, shall be corrected and re-issued until a duplicate of the model and drawing of the thing, as originally invented, verified by oath as shall be required by the Commissioner, shall be deposited in the Patent office. Nor shall any addition of an improvement be made to any patent heretofore granted, nor any new patent be issued for an improvement made in any machine, manufacture, or process, to the original inventor, assignee, or possessor, of a patent therefor, nor any disclaimer be admitted to record, until a duplicate model and drawing of the thing originally invented, verified as aforesaid, shall have been deposited in the Patent office, if the Commissioner shall require the same; nor shall any patent be granted for an invention, improvement, or discovery, the model or drawing of which shall have been lost, until another model and drawing, if required by the Commissioner, shall, in like manner be deposited in the Patent office. And in all such cases, as well as in those which may arise under the third section of this act, the question of compensation for such models and drawing, shall be subject to the judgment and decision of the commissioners provided for in the fourth section, under the same limitations and restrictions as are therein prescribed.

SECTION 6. *And be it further enacted*, That any patent, hereafter to be issued, may be made and issued to the assignee or assignees of the inventor or discoverer, the assignment thereof being first entered of record, and the application therefor being duly made, and the specification duly sworn to by the inventor. And in all cases hereafter, the applicant for a patent shall be held to furnish duplicate drawings, whenever the case admits of drawings, one of which to be deposited in the office, and the other to be annexed to the patent, and considered a part of the specification.

SECTION 7. *And be it further enacted*, That whenever any patentee shall have, through inadvertence, accident, or mistake, made his specification of claim too broad, claiming more than that of which he was the original or first inventor, some material and substantial part of the thing patented being truly and justly his own, any such patentee, his administrators, executors, and assigns, whether of the whole or of a sectional interest therein, may make disclaimer of such parts of the thing patented as the disclaimant shall not claim to hold by virtue of the patent or assignment, stating therein the extent of his interest in such patent; which disclaimer shall be in writing, attested by one or more witnesses, and recorded in the Patent office, on payment by the person disclaiming, in manner as other patent duties are required by law to be paid, of the sum of ten dollars. And such disclaimer shall thereafter be taken and considered as part of the original specification, to the extent of the interest which shall be possessed in the patent or right secured thereby, by the disclaimant, and by those claiming by or under him, subsequent to the record thereof. But no such disclaimer shall affect any action pending at the time of its being filed, except so far as may relate to the question of unreasonable neglect or delay in filing the same.

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SECTION 8 *And be it further enacted*, That whenever application shall be made to the Commissioner for any addition of a newly discovered improvement to be made to an existing patent, or whenever a patent shall be returned for correction and reissue, the specification of claim annexed to every such patent shall be subject to revision and restriction, in the same manner as are original applications for patents; the Commissioner shall not add any such improvement to the patent in the one case, nor grant the reissue in the other case, until the applicant shall have entered a disclaimer, or altered his specification of claim in accordance with the decision of the Commissioner; and in all such cases, the applicant, if dissatisfied with such decision, shall have the same remedy, and be entitled to the benefit of the same privileges and proceedings, as are provided by law in the case of original applications for patents.

SECTION 9. *And be it further enacted*, (any thing in the fifteenth section of the act, to which this is additional, to the contrary notwithstanding,) That whenever, by mistake, accident, or inadvertence, and without any wilful default or intent to defraud or mislead the public, any patentee shall have in his specification claimed to be the original and first inventor or discoverer of any material or substantial part of the thing patented, of which he was not the first and original inventor, and shall have no legal or just right to claim the same, in every such case the patent shall be deemed good and valid for so much of the invention or discovery as shall be truly and bona fide his own: *Provided*, It shall be a material and substantial part of the thing patented, and be definitively distinguishable from the other parts so claimed without right as aforesaid. And every such patentee, his executors, administrators, and assigns, whether of a whole or of a sectional interest therein, shall be entitled to maintain a suit at law or in equity on such patent for any infringement of such part of the invention or discovery as shall be bona fide his own as aforesaid, notwithstanding the specification may embrace more than he shall have any legal right to claim. But in every such case in which a judgment or verdict shall be rendered for the plaintiff, he shall not be entitled to recover costs against the defendant, unless he shall have entered at the Patent office, prior to the commencement of the suit, a disclaimer of all that part of the thing patented which was so claimed without right: *Provided, however*, That no person bringing any such suit shall be entitled to the benefits of the provisions contained in this section, who shall have unreasonably neglected or delayed to enter at the Patent office a disclaimer as aforesaid.

SECTION 10. *And be it further enacted*, That the Commissioner is hereby authorized and empowered to appoint agents in not exceeding twenty of the principal cities or towns in the United States, as may best accommodate the different sections of the country, for the purpose of receiving and forwarding to the Patent office all such models, specimens of ingredients, and manufactures, as shall be intended to be patented or deposited therein, the transportation of the same to be chargeable to the Patent fund.

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SECTION 11. *And be it further enacted*, That, instead of one examining clerk, as provided by the second section of the act to which this is additional, there shall be appointed, in manner therein provided, two examining clerks, each to receive an annual salary of fifteen hundred dollars; and also an additional copying clerk, at an annual salary of eight hundred dollars. And the Commissioner is also authorized to employ, from time to time, as many temporary clerks as may be necessary to execute the copying and draughting required by the first section of this act, and to examine and compare the records with the originals, who shall receive not exceeding seven cents for every page of one hundred words, and for drawings and comparison of records with originals such reasonable compensation as shall be agreed upon or prescribed by the Commissioner.

SECTION 12. *And be it further enacted*, That whenever the application of any foreigner for a patent shall be rejected and withdrawn for want of novelty in the invention, pursuant to the seventh section of the act to which this is additional, the certificate thereof of the Commissioner shall be a sufficient warrant to the Treasurer to pay back to such applicant two-thirds of the duty he shall have paid into the Treasury on account of such application.

SECTION 13. *And be it further enacted*, That in all cases in which an oath is required by this act, or by the act to which this is additional, if the person of whom it is required shall be conscientiously scrupulous of taking an oath, affirmation may be substituted therefor.

SECTION 14. *And be it further enacted*, That all moneys paid into the Treasury of the United States for patents and for fees for copies furnished by the superintendent of the Patent office prior to the passage of the act of which this is additional, shall be carried to the credit of the Patent fund created by said act; and the moneys constituting said fund shall be, and the same are hereby, appropriated for the payment of the salaries of the officers and clerks provided by said act, and all other expenses of the Patent office, including all the expenditures provided for by this act; and also for such other purposes as are or may be hereafter specially provided for by law. And the Commissioner is hereby authorized to draw upon said fund, from time to time, for such sums as shall be necessary to carry into effect the provisions of this act, governed, however, by the several limitations herein contained. And it shall be his duty to lay before Congress, in the month of January, annually, a detailed statement of the expenditures and payments by him made from said fund. And it shall also be his duty to lay before Congress, in the month of January, annually, a list of all patents which shall have been granted during the preceding year, designating, under proper heads, the subjects of such patents, and furnishing an alphabetical list of the patentees, with their places of residence; and he shall also furnish a list of all patents which shall have become public property during the same period; together with such other information of the state and condition of the Patent office as may be useful to Congress or to the public.

Approved, March 3d, 1837.

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A BILL in addition to an "Act to promote the progress of the Useful Arts."

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That there shall be appointed, in manner provided in the second section of the act to which this is additional, two assistant examiners, each to receive an annual salary of twelve hundred and fifty dollars.

SEC. 2. *And be it further enacted*, That the Commissioner be authorized to employ temporary clerks to do any necessary transcribing, whenever the current business of the office requires it: *Provided, however*, That, instead of salary, a compensation shall be allowed at a rate not greater than is charged for copies now furnished by the office.

SEC. 3. *And be it further enacted*, That the Commissioner is hereby authorized to publish a classified and alphabetical list of all patents granted by the Patent office previous to said publication, and retain one hundred copies for the Patent office, and nine hundred copies to be deposited in the Library of Congress for such distribution as may be hereafter directed; and that one thousand dollars, if necessary, be appropriated out of the Patent fund to defray the expense of the same.

SEC. 4. *And be it further enacted*, That the sum of three thousand six hundred and fifty-nine dollars and twenty-two cents be, and is hereby, appropriated from the Patent fund, to pay for the use and occupation of rooms in the City Hall by the Patent office.

SEC. 5. *And be it further enacted*, That the sum of one thousand dollars be appropriated from the Patent fund, to be expended under the direction of the Commissioner, for the purchase of necessary books for the library of the Patent office.

SEC. 6. *And be it further enacted*, That no person shall be debarred from receiving a patent for any invention or discovery, as provided in the act approved on the fourth day of July, one thousand eight hundred and thirty-six, to which this is additional, by reason of the same having been patented in a foreign country more than six months prior to his application: *Provided*, That the same shall not have been introduced into public and common use in the United States prior to the application for such patent: *And provided, also*, That in all cases every such patent shall be limited to the term of fourteen years from the date or publication of such foreign letters patent.

SEC. 7. *And be it further enacted*, That every person or corporation who has, or shall have, purchased or constructed any newly invented machine, manufacture, or composition of matter, prior to the application by the inventor or discoverer for a patent, shall be held to possess the right to use, and vend to others to be used, the specific machine, manufacture, or composition of matter so made or purchased, without liability therefor to the inventor, or any other person interested in such invention; and no patent shall be held to be invalid by reason of such purchase, sale, or use, prior to the application for a patent as aforesaid, except on proof of abandonment of such invention to the public, or that such purchase, sale, or prior use, has been for more than two years prior to such application for a patent.

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SEC. 8. *And be it further enacted*, That so much of the eleventh section of the above recited act as requires the payment of three dollars to the Commissioner of Patents for recording any assignment, grant, or conveyances of the whole or any part of the interest or right under any patent, be and the same is hereby repealed; and all such assignments, grants, and conveyance shall, in future, be recorded without any charge whatever.

SEC. 9. *And be it further enacted*, That a sum of money, not exceeding one thousand dollars, be, and the same is hereby, appropriated out of the Patent fund, to be expended by the Commissioner of Patents in the collection of the agricultural statistics, and for other agricultural purposes; for which the said Commissioner shall account in his next annual report.

SEC. 10. *And be it further enacted*, That the provisions of the sixteenth section of the before recited act shall extend to all cases where patents are refused for any reasons whatever, either by the Commissioner of Patents or by the Chief Justice of the District of Columbia, upon appeals from the decision of said Commissioner, as well as where the same shall have been refused on account of, or by reason of, interference with a previously existing patent; and in all cases where there is no opposing party, a copy of the bill shall be served upon the Commissioner of Patents, when the whole of the expenses of the proceeding shall be paid by the applicant, whether the final decision shall be in his favor or otherwise.

SEC. 11. *And be it further enacted*, That in cases where an appeal is now allowed by law from the decision of the Commissioner of Patents to a board of examiners, provided for the seventh section of the act to which this is additional, the party instead thereof shall have a right to appeal to the Chief Justice of the district court of the United States, for the District of Columbia, by giving notice thereof to the Commissioner, and filing in the Patent office, within such time as the Commissioner shall appoint, his reasons of appeal, specifically set forth in writing, and also paying into the Patent office, to the credit of the Patent fund, the sum of twenty-five dollars. And it shall be the duty of the said Chief Justice, on petition, to here and determine all such appeals, and to revise such decisions in a summary way, on the evidence produced before the Commissioners, at such early and convenient time as they may appoint, first notifying the Commissioner of the time and place of hearing, whose duty it shall be to give notice thereof to all parties who appear to be interested therein, in such manner as said judge shall prescribe. The Commissioner shall also lay before the said judge all the original papers and evidence in the case, together with the grounds of his decision, fully set forth in writing, touching all the points involved by the reasons of appeal, to which the revision shall be confined. And at the request of any party interested, or at the desire of the judge, the Commissioner and the examiners in the Patent office may be examined under oath, in explanation of the principles of the machine or other

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thing for which a patent, in such case, is prayed for. And it shall be the duty of the said judge, after a hearing of any such case, to return all the papers to the Commissioner, with a certificate of his proceedings and decision, which shall be entered of record in the Patent office; and such decision, so certified, shall govern the further proceedings of the Commissioner in such case: *Provided, however*, That no opinion or decision of the judge in any such case shall preclude any person interested in favor or against the validity of any patent which has been, or may hereafter be, granted, from the right to contest the same in any judicial court, in any action in which its validity may come in question.

SEC. 12. *And be it further enacted*, That the Commissioner of Patents shall have power to make all such regulations in respect to the taking of evidence to be used in contested cases before him, as may be just and reasonable. And so much of the act to which this is additional, as provides for a board of examiners, is hereby repealed.

SEC. 13. *And it further enacted*, That there be paid annually, out of the Patent fund, to the said Chief Justice, in consideration of the duties herein imposed, the sum of one hundred dollars.

Approved March 3d, 1839.

AN ACT in addition to an act to promote the progress of the useful arts, and to repeal all acts and parts of acts heretofore made for that purpose.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Treasurer of the United States be, and he hereby is, authorized to pay back, out of the Patent fund, any sum or sums of money, to any person who shall have paid the same into the treasury, or to any receiver or depository to the credit of the Treasurer, as for fees accruing at the Patent office, through mistake, and which are not provided to be paid by existing laws, certificate thereof being made to said treasurer by the Commissioner of Patents.

SEC. 2. *And be it further enacted*, That the third section of the act of March, eighteen hundred and thirty-seven, which authorizes the renewing of patents lost prior to the fifteenth of December, eighteen hundred and thirty-six, is extended to patents granted prior to said fifteenth day of December, though they may have been lost subsequently: *Provided, however*, The same shall not have been recorded anew under the provisions of said act.

SEC. 3. *And be it further enacted*, That any citizen or citizens, or alien or aliens, having resided one year in the United States, and taken the oath of his or their intention to become a citizen or citizens, who by his, her, or their own industry, genius, efforts, and expense, may have invented or produced any new and original design for a manufacture, whether of metal or other material or materials, or any new and original design for the printing of woollen, silk, cotton, or other fabrics, or any new and original design for a bust, statue, or bas relief, or composition

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in alto or basso relievo, or any new and original impression or ornament, or to be placed on any article of manufacture, the same being formed in marble or other material, or any new and useful pattern, or print, or picture, to be either worked into, or worked on, or printed, or painted, or cast, or otherwise fixed on, any article of manufacture, or any new and original shape or configuration of any article of manufacture not known or used by others before his, her, or their invention or production thereof, and prior to the time of his, her, or their application for a patent therefor, and who shall desire to obtain an exclusive property or right therein to make, use, and sell, and vend the same, or copies of the same, to others, by them to be made, used, and sold, may make application, in writing, to the Commissioner of Patents expressing such desire, and the Commissioner, on due proceedings had, may grant a patent therefor, as in the case now of application for a patent: *Provided*, That the fee in such cases, which by the now existing laws would be required of the particular applicant, shall be one-half the sum, and that the duration of said patent shall be seven years, and that all the regulations and provisions which now apply to the obtaining or protection of patents not inconsistent with the provisions of this act, shall apply to applications under this section.

Sec. 4. *And be it further enacted*, That the oath required for applicants for patents may be taken, when the applicant is not, for the time being, residing in the United States, before any minister plenipotentiary, chargé d'affaires, consul, or commmercial agent holding commission under the Government of the United States, or before any notary public of the foreign country in which such applicant may be.

Sec. 5. *And be it further enacted*, That if any person or persons shall paint, or print, or mould, cast, carve, or engrave, or stamp, upon any thing made, used, or sold by him, for the sole making or selling of which he hath not, or shall not have, obtained letters patent, the name or any imitation of the name of any other person who hath or shall have obtained letters patent for the sole making and vending of such thing, without consent of such patentee, or his assigns or legal representatives; or if any person, upon any such thing not having been purchased from the patentee, or some person who purchased it from or under such patentee, or not having the license or consent of such patentee, or his assigns or legal representatives, shall write, paint, print, mould, cast, carve, engrave, stamp, or otherwise make or affix the word "patent," or the words "letters patent," or the word "patentee," or any word or words of like kind, meaning, or import, with the view or intent of imitating or counterfeiting the stamp, mark, or other device of the patentee, or shall affix the same, or any word, stamp, or device of like import, on any unpatented article for the purpose of deceiving the public, he, she, or they, so offending, shall be liable for such offence to a penalty of not less than one hundred dollars, with costs, to be recovered by action in any of the circuit courts of the United States, or in any of the district courts of the United States having the powers and jurisdiction of a circuit court; one-half of which penalty, as recovered, shall be paid to the

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Patent fund, and the other half to any person or persons who shall sue for the same.

SEC. 6. *And be it further enacted,* That all patentees and assignees of patents hereafter granted, are hereby required to stamp, engrave, or cause to be stamped or engraved, on each article vended or offered for sale, the date of the patent; and if any person or persons, patentees or assignees; shall neglect to do so, he, she, or they shall be liable to the same penalty, to be recovered and disposed of in the manner specified in the foregoing fifth section of this act.

Approved, August 29th, 1842.

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